THE ROLE OF LEARNING AND IDENTITY IN STUDENTS' ENGAGEMENT WITH EMPLOYABILITY PRACTICES IN HIGHER EDUCATION: A MIXED METHODS APPROACH.

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Abstract

Supporting student engagement with employability is a major focus in contemporary UK higher education (HE). Employability can be conceptualised as a possession, position, or process (Holmes, 2013). As a possession or position, employability is conceptualised through Bourdieu's concept of capital, in which academic success, work experience, engagement with careers guidance, and acquiring transversal skills (such as communication skills) are four forms of 'employability capital' that can lead to successful attainment of graduate employment. In contrast, the graduate attributes approach conceptualises employability as a process, advocating interventions that encourage students to develop a graduate identity involving an orientation to lifelong skills development. Both approaches offer important contributions to the development of HE employability practices, but they are underdeveloped in terms of the psychological processes that underpin students' engagement with either graduate identities or practices associated with employability. Addressing this gap, the thesis offers a novel and creative contribution to the employability literature by suggesting self-regulated learning (SRL) as a model for conceptualising these underlying psychological processes that predict students' engagement with employability capitals. SRL theory includes a person's ability to strategically manage learning and includes identity as a mediator of this process. SRL is thus relevant for theorising student engagement with employability practices. The thesis addressed the following questions through a mixed method design: Can SRL predict students' engagement with practices associated with employability capitals? How do first-year students understand the different employability capitals? And how do final-year students negotiate issues of

identity around employability? Research Question 1 was addressed with a quantitative study employing path analysis on data from 294 undergraduate students to identify any correlations between SRL (as measured through instruments of metacognition, self-efficacy, and views about knowledge and learning) and employability capitals (academic success, work experience, engagement with careers guidance, transversal skills). SRL showed a direct effect on skills ($\beta = .58$, $p<.05$), career-development support ($\beta = .25$, $p<.05$), and degree classification ($\beta = .34$, $p<.05$). However, there was no significant result for engagement with work experience ($\beta = .02$, $p>.05$), suggesting that work experience – at least as it was measured in Study 1 – could not be predicted by SRL. Research Question 2 was addressed with a Template Analysis exploring employability with twenty first-year undergraduate students who were at the start of their HE journey. The students' talk of their academic study, work experience, and careers guidance demonstrated that their experience of engaging with these employability capitals was difficult because of complex and competing understandings in the value of employability capitals, which affected with students decisions about whether or not to engage with employability. Research Question 3 was addressed using interpretative phenomenological analysis on a focus group with three final-year students. The findings highlighted barriers to affirmative employability identities, including paradox of needing experience to gain experience, that students experienced unequal capital in social networks, and the sometimes adverse implications for identity for students as they negotiated their past experiences, developmental maturation, and complex social context. The qualitative findings provided important insights that illuminated students' patterns of engagement and non-engagement with employability found in the quantitative findings, and supported the use of a multifaceted model for employability to account for individual, cognitive, and

social factors in students' engagement with graduate employability, while highlighting previously unconsidered but significant challenges for those developing employability interventions. Employability interventions are often theoretically underdeveloped and empirically unsupported. The thesis contributes to the development of a well-evidenced model of employability to support evidenced-based practice in HE, thus contributing to understandings about how universities can best support students in preparation for graduate employment.

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Chapter 1

Introduction and Overview of the Thesis

This chapter outlines the background and justification for this thesis and introduces the rationale for its research questions. In so doing, it describes how the thesis identified and brought together a range of disparate literatures on employability to propose that self-regulated learning (SRL) might be a useful concept for developing understanding of the processes involved in students' level of engagement with practices associated with employability. The chapter then finishes with a brief outline of the subsequent chapters.

1.1.0 Overview of the key arguments in the employability literature

The term employability denotes students' approach to, and understanding of, the attributes and activities they will need to engage with in order to reach their aspirations for graduate employment. Employability is an important issue because a range of stakeholders including the government, higher education institutions (HEIs), employers and students consider that university education should enhance employability. In particular, increasing their access to graduate employment opportunities is a major reason for students to participate in higher education (HE).

However, research points to a range of factors that limit students' engagement with employability provision in HE, which include, but are not limited to, complex and contradictory demands on learning in a changing landscape (Driffield, Foster, & Higson, 2011; Hinchliffe & Jolly, 2011; Stewart & Knowles, 2000), shifting understandings

about careers and graduate employment (Holmes, 2006; Pegg, Waldock, Hendy-Isaac, & Lawton, 2012; Tomlinson, 2010), labour market demand (Hillage & Pollard, 1998), and resistance to employability from students and academic staff (Glover & Longstaff, 2015; Morrison, 2013; Sarson, 2013). This complex context has resulted in a lack of consensus and clarity about employability definitions, models, and measurement tools (Harvey, 2001; Holmes, 2013). As such, when seeking to guide students towards employability engagement, there is no one theory or perspective that can encompass the variability, complexity, and dynamism of this desired action.

Because HE provision now encompasses employability, students are expected to direct their learning towards diverse academic and employment goals which may sit alongside or be embedded in academic curricula (Pegg et al., 2012). There is limited research on students' understandings of employability but what has been done points towards considerable complexity in student's understandings of and interactions with employability, which include the potential for negative as well as positive engagement. Thus, despite considerable investment from HE, there are a number of issues which surround and complicate a student's engagement with employability. For example, students have finite amounts of time and energy to direct towards their goals and to manage these resources, and they need the requisite academic, learning and personal skills. In this context, students have to engage in complex decision making, the outcome of which is that while many students participate in a range of extra-curricular activities, there are far fewer who engage with the strategy that analysts consider they need to best prepare for graduate employment (Thompson, Clark, Walker, & Whyatt, 2013).

How to best prepare students for graduate employment is a question that has engaged multiple stakeholders, including students, HE institutions, government, and employers (Brott, 2012). These stakeholders influence, but also complicate, the

operationalisation of employability, including students' often narrow understandings of employability, institutions seeking to enhance students' academic and employability skills, governments seeking to minimise unemployment and increase social mobility, and employers responding reactively to alleviate skills deficits (Holmes, 2013; Tomlinson, 2012). These multiple perspectives may be contested or resisted by the various stakeholders involved, such as students not valuing university endorsed employability skills, or academic staff required to deliver employability curricula when they consider that it competes with their work to support students in developing academic skills and goals. Such problems are the product, at least in part, of an absence of a well-evidenced and widely accepted model of employability and the scattered and relatively sparse literature on what psychological attributes or practices are related to employability, which also contributes to the lack of a universal definition of graduate employability.

Without an appropriately evidence-based model of employability, implementation of employability training in HE is likely to be theoretically underdeveloped and empirically unsupported (Brown & Hesketh, 2004). There are many models of employability, although these are not necessarily underpinned by empirical work, but developed from secondary research based on related issues, such as those from occupational psychology. In general, there is a lack of empirical work directly on employability in HE, and the existing empirical work that explicitly addresses employability is scattered across different research silos. For example, employability has been studied in both discipline-specific and generalised ways, using a range of approaches, including those based on Bourdieu's concept of capitals (which focus on students' personal and social resources related to employability), graduate attribute approaches (which focus on processes, such as the way identity that might facilitate

or limit a student's engagement with practices associated with employability), and approaches that focus on the underlying processes of learning that may mediate engagement with employability related practices. This context forms the basis of the present thesis, which was funded by Higher Education Academy (HEA) Mike Baker Doctoral Programme, in part to address the preparation of students for graduate employment, but also to address the deficits and criticisms of the field by drawing together and developing the existing diverse approaches to employability.

In the context of multiple definitions, approaches, and foci of employability research, Holmes (2013) made a significant contribution to the field by drawing together the diverse literature through a typology that categorised three competing perspectives of employability. Holmes argued that employability literatures could be categorised in terms of how they conceptualised employability as either a possession, a position, or a process. From the possession and position perspectives, an individual who holds a degree should increase their chances of graduate level employment because they engage in practices associated with employability capitals that allow them to go on to possess certain attributes (such as a first class degree). However, their chances of gaining graduate employment are also affected by the wider context. For example, the scarcity or otherwise of other graduates in the labour market will determine the position or value of the degree.

Employability can also be conceptualised as a process. From a process perspective, the focus is shifted away from the wider context and onto the individual student's attributes in terms of their skills in learning. Here, the degree is a signifier of a broader learning journey with which the graduate has engaged as part of self-development, and which is linked to developing what are called a graduate identities.

The present thesis builds on Holmes' work by using his typology to structure

a comprehensive literature review on employability and identify strengths and weaknesses in these different approaches (see chapters 2 and 3). From which, the thesis suggests a novel contribution to employability research by proposing self-regulated learning (SRL) as the psychological process that underpins students' engagement with employability (when defined either as graduate identities or practices associated with employability capitals). In so doing, the thesis develops an important but underdeveloped aspect of employability research, that of the psychological mechanisms of learning.

From the possession and position perspectives, a key definition of employability is as a 'set of achievements – skills, understandings and personal attributes – that make individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community, and the economy' (Yorke & Knight, 2007, p.8). A starting point to thinking about student engagement with employability then, is to consider what the student needs to engage with in order to form the 'set of achievements' or an employability portfolio. Across the employability literature, there are four key institutionally valued practices of employability that might be considered as 'good employability', these are: academic success (such as degree class), work experience, engagement with careers guidance, and acquiring transversal skills (such as good communication skills). These practices are understood as impressing and meeting the needs of employers, enabling graduating students to secure graduate jobs and provide a return on the student's investment of time, effort and money in their degree.

Drawing upon the work of sociologist Pierre Bourdieu, scholars taking the possession and position perspective conceptualise the four employability practices described above (of academic success, work experience, engagement with careers

guidance, and acquiring transversal skills) as four forms of 'employability capital' that can be converted into economic capital through the successful attainment of graduate employment. The concept of 'employability capital' is thus used to conceptualise employability as a set of capitals that may be possessed or which position the student in particular valued or less valued ways. For example, it would be seen as advantageous for students to participate in work experience, particularly work experience that develops graduate-level job skills, as they would now possess such skills which they could put on their CV.

Conceptualising employability as a form of capital also allows students' engagement with employability to be contextualised within wider relevant societal and economic issues. For example, if graduate supply outstrips labour market demand, then the value of the degree may be compromised. The fluidity of capital value may, therefore, go some way to explain the confusion that students face when orientating their learning towards employability, and it has particular implications for students with fewer social and cultural privileges since they may be more vulnerable to economic downturns. The implication is that employability interventions should not have graduate employment as their only end-goal, since some students may not be able to attain this goal despite apparent attainment of employability capitals, for example, if there is less demand for graduates in the labour force. Students will, therefore, need other motivations for engaging with employability provision at HE, such as it being tied to a valued identity or gaining pleasures associated with self-development. It is this argument that underpins the rational used by proponents of the process approach.

In the process approach, graduate identity is conceptualised as a 'becoming', whereby the student develops a competent, educated, and skilled identity that is recognisable to others as 'graduate' (Holmes, 2015). Conceptualising employability in

this way draws on ideas of an 'identity project' (Giddens, 1991) whereby self-identity both shapes, and is shaped by, the structures of institutions. From this perspective, students are not passive receptacles of the graduate identities proposed by institutions, but are engaged in a sense-making process to assimilate the structure of the graduate identity into their own self.

By attending to motivations, such as those related to identity, the process approach to employability developed as a response to the problems of the possession and position perspectives outlined above. The focus on motivation pointed towards the need to develop a more psychologised operationalisation of employability in order to identify psychological processes that might be taught to students to help overcome barriers to social mobility associated with social and cultural privileges. This shift involved a standpoint that recognised that students needed to engage with practices associated with employability (e.g. developing transversal skills), even if they might not always lead to graduate employment, and argued that the best way of creating engagement with these practices was to develop a positive orientation towards skills development through identity.

The process approach thus shifted pedagogic attention away from capitals as a prescriptive 'tick box' of possessions, and towards what was seen as a more affirmative consideration of lifelong engagement with skills development for employment. This approach is recognised in the field as the 'graduate-attributes movement', which is characterised by its focus on processes related to engaging with skills development for employment. The graduate-attributes movement also highlighted the importance of identity and the need for HE employability interventions to develop a 'graduate identity' in their students that will then drive behaviour. The focus on identity comes from research on how identities can mediate students' engagement with practices

associated with employability capitals, which indicated both the importance of identity to employability engagement, but also the potential for considerable complexity. For example, students who are encouraged to see networking as an important aspect of a graduate identity might reject such an identity if they consider networking an inauthentic practice of self (see Brown & Hesketh, 2004). Such findings suggest that in order to develop a comprehensive, evidence-based model from which to develop effective employability interventions, what is called for is more research on the dynamics between identity and employability. In particular, it is the contention of this thesis that what is needed is a better understanding of the processes that underlie identity and its associated effects on engagement with skills development for employment.

In considering the problem of what processes underlie engagement with employability, the thesis also highlights an absence of engagement with the field of learning research by employability researchers. This is despite advocates of the graduate attributes approach arguing for a focus on empowering students to become lifelong, critical, and reflective learners (Holmes, 2013) and/or encouraging self-directedness which fosters 'genuine' graduate attributes (Su, 2014). As discussed in the following chapters, identifying this gap led to the argument that a fruitful direction for employability research would be to examine how students manage their learning towards employability, and a review of the learning literature identified the self-regulated learning (SRL) model developed by Schraw, Crippen, and Hartley (2006) as a well-supported, relevant model of learning.

The SRL approach emphasises how individuals manage their learning across time and towards goals, and includes the dimensions of metacognition, self-efficacy, and views about knowledge and learning (epistemological beliefs). SRL is readily aligned with academic learning, with evidence that those with higher levels of the construct

are better at achieving goals, learn easier, procrastinate less, are more motivated, and show higher levels of academic satisfaction (e.g. Clark, 2012; Pintrich, 2000; Schraw et al., 2006; Schmitz & Wiese, 2006; Zimmerman & Campillo, 2003). It was therefore predicted that SRL might also be related to engagement with practices associated with employability, such as engaging with the four employability capitals of careers guidance, work experience, academic success and transversal skills. Schraw, Crippen and Hartley's (2006) well-established model of SRL was then used to predict that students are more likely to engage with the four employability capitals when they are well practised in regulating their cognitive strategies (metacognition), believe they can achieve their desired goal (self-efficacy), and hold world-views about knowledge generation which support this growth (epistemological belief).

Self-regulated learning is also relevant to employability engagement because theorists conceptualise identity as an important influencer of SRL, thus tying together processes of learning with identity processes highlighted by the graduate attributes literature on employability. Conceptualised as acting as a 'compass', in SRL, identity is understood as facilitating students' analysis of what information is relevant for them and directing students towards the information from the environment that they consider relevant (Baumeister, Heatherton, & Tice, 1994; Boekaerts, Pintrich, & Zeidner, 2005; Simon, 2008). Thus, the gap in understanding the underlying processes involved in the role of identity in employability (as identified in the research by the graduate attributes movement) might be addressed by considering students' orientation to learning, in particular, their ability to self-regulate their learning. Bringing together the learning and employability literatures thus points to a need to investigate whether SRL can be mapped onto the development of employability capitals.

SRL also offers new ways to develop existing models of employability. For

example, Fugate et al.'s (2004) Psycho-Social Model of Employability has three dimensions relating to personal adaptability, career identity, and human and social capital. These dimensions are considered to operate together to promote or restrict engagement with employability. Fugate et al. make several suggestions as to what might contribute to 'personal adaptability', but in considering the learning literature, the present thesis proposed that personal adaptability might be more usefully conceptualised, and more easily measured, as a form of SRL.

The final set of issues informing the thesis was to highlight the relative absence of the student voice in the employability literature and the utility of incorporating students' own sense-making into analysis of their engagement with employability. Thus, arguing that SRL offers a model that includes orientation to learning and identity relevant for theorising employability engagement practices, and the importance of research that includes the student voice, the thesis proposed the following questions:

- Research question 1: Can SRL predict students' engagement with practices associated with employability capitals?
- Research question 2: How do first-year students understand the different employability capitals?
- Research question 3: How do final-year students negotiate issues of identity around employability?

To address these questions, the thesis used a creative mixed methods design, conducting three studies conceptually held together through critical realist epistemology. By adopting this framework, the thesis aimed to take a critical and rigorous approach to the study of employability, by recognising the value of existing

models and research and respecting the challenges of teaching employability in HE, while also troubling the concept through the application of critical literature, rigorous testing and analysis.

1.2.0 Organisation of the thesis

This thesis is organised across eight chapters. Chapter 1 above explained the rationale of the thesis, and below, now offers a brief summary of subsequent chapters.

Chapter 2

In this chapter, a literature review sets the scene of employability as a complex and socially influenced construct. Holmes' (2013) possession and position perspectives of employability are used to frame this argument. This chapter begins with a historical overview of employability, moving to an explanation of how employability is visible in contemporary HE. Here, student engagement with employability is outlined through a Bourdieusian lens using the capitals of academic study, work experience, careers guidance, and transversal skills. Throughout the chapter, a critical evaluation of the problems and issues which surround employability are outlined, building the case for the process approach in the next chapter.

Chapter 3

In this chapter, an argument is put forward for thinking about employability as a process. The graduate attributes approach, led by the work of Len Holmes (2001), is argued to be useful for thinking about how students engage with employability, but also limited through a neglect of the processes involved in students' underlying capacity to engage with learning across time and towards goals. Building on this argument, self-regulated learning is introduced as a construct that can inform and develop the graduate attributes approach, and contribute to existing models of employability that include

personal attributes, identity and human and social capital dimensions, such as that of Fugate et al.'s (2004) Psycho-social Model of employability. The chapter concludes with the research questions.

Chapter 4

This chapter describes the methodological framework used to address the research questions. A rationale for a mixed-methods approach to researching employability is made, followed by a discussion of the underpinning theoretical framework of critical realism (Bhaskar, 2013). Critical realism is justified as an appropriate way to position the three studies of this thesis within a coherent epistemological and ontological framework, allowing the exploration of employability as a psychosocial construct through the use of mixed methods. The analytic rationale is then explained for each of the studies, covering psychometrics, template analysis, and interpretative phenomenological analysis (IPA). An ethics statement concludes the chapter, outlining the concerns and issues surrounding research on employability organised by procedural and practice issues.

Chapter 5

Chapter 5 presents Study 1 which addressed Research Question 1, examining whether students' SRL scores impact on engagement with the employability capitals in ways predicted in the literature review. In Study 1, 294 completed instruments were collected from students aged 18-30 registered on degree programmes in the UK. Four pre-validated instruments were selected to represent a proxy measure of SRL, these were, the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994), the General Self-Efficacy Scale (NGSE) (Chen, Gully, & Eden, 2001), the Workplace Self-Efficacy Scale (WSSE) (Fan et al., 2013), and the Epistemological Beliefs Inventory (EBI) (Schraw, Bendixen, & Dunkle, 2002). The suitability of the instruments was

guided by Schraw's Model of Self-Regulated Learning, but also because the instruments included items which were applicable to the broader learning context of employability engagement. Chapter 5 also describes the rationale of the employability proxy measures (academic study, work experience, careers guidance, and transversal skills).

A full report of the path analysis is given which tested a battery of predictions, and which demonstrated support for the effect of SRL on academic study, transversal skills, and careers guidance, but not for SRL on work experience. The discussion focuses on how these findings supported the proposition of the thesis in that SRL is a concept that can explain some of the psychological processes underpinning students' engagement with practices associated with employability capitals, but also opened up further questions suitable for qualitative enquiry.

Chapter 6

Building on the findings in Study 1 and addressing Research Question 2 and the absence of the student voice in previous employability research (Tymon, 2013), this chapter presents the results of a Template Analysis exploring employability with twenty first-year undergraduate students who were at the start of their HE journey. The students' talk of their academic study, work experience, and careers guidance demonstrated that their experience of engaging with graduate employability was complex and sometimes contradictory. The analysis identified how students experienced dilemmas between competing understandings of the value of different employability capitals, so that rather than experiencing employability in HE as harmonious and linear, students described complex negotiations between past experiences, multiple identities, and issues relating to developmental maturation.

Chapter 7

This chapter presented the results of Study 3 and addressed Research Question

3, through an IPA enquiry of a focus group exploring what employability meant to three final-year students as their graduation loomed. Their narratives illustrated the considerable complexity and challenges that students may face as they seek to reconcile an 'authentic' identity with identities necessitated by the demands of employability. Study 3 was important in its own right, and it also provided an analysis that was used to interpret the findings of Study 1 and Study 2 further. The different cohorts in Studies 2 and 3 also allowed the research to explore issues at the beginning and end of undergraduate students' HE employability engagement. The analysis in chapter 7 thus started to draw together important implications for HE, employers, and policy from the thesis' findings.

Chapter 8

To conclude the thesis, chapter 8 discussed the novel findings spanning across the qualitative and quantitative studies, showing how the thesis contributes to the literature base by drawing out particular implications for conceptualising employability and developing employability interventions. Overall, the findings enabled by the adoption of a mixed-methods approach to this complex socially situated phenomenon, point to the importance of SRL to employability, while also showing the complexity in how students' negotiate employability. The findings also demonstrated the value of psychological approaches to employability in combination with sociological theory. Given that SRL was shown to be mediated by dilemmas of capital and identity, the findings of this thesis suggest that the most vulnerable students of all will have underdeveloped self-regulatory status in combination with an identity which rejects or resists engagement, making successful interventions that target these students particularly difficult. The findings suggest evidence-based directions for higher education institutions to draw upon when supporting undergraduate students

in developing employability; in particular, utilising SRL theory to inform cohesive employability identities which may reduce the tensions between teaching academic subjects and supporting employability practices. The chapter concludes with a discussion of future directions and a reflexive essay.

Chapter 2

Conceptualising Employability

The visibility of employability in HE is both led by and has led to, a plethora of pedagogic research and grey literature on employability. This literature includes several reviews which have contributed to the core arguments and debates (e.g. Artess, Mellors-Bourne, & Hooley, 2017; Lees, 2002; Tomlinson, 2012; Williams, Dodd, Steele, & Randall, 2015). However, despite this work, conceptualisations and definitions of employability lack consensus and clarity (Knight, 2001; Rothwell & Arnold, 2007; Yorke, 2006), while investigations of employability at the level of student's understandings also represent a gap in the literature. Observations of somewhat unexpected patterns of reduced student engagement indicate the limitations of current understandings of the demands of employability for a range of stakeholders (Tymon, 2013). These gaps in understanding contribute to the rationale of this thesis, which is to both identify psychological processes that predict students' engagement with employability practices, and develop a more nuanced understanding of how identity might mediate students' engagement with employability practice.

To begin, this chapter outlines the search strategy used for the literature review presented in chapters 2 and 3, before briefly outlining the historical development of the concept of employability that has led to two contemporary approaches. The first approach is then discussed in this chapter and is informed by the work of Bourdieu to conceptualise employability as a capital that is possessed or gives a student a particular social position. The second 'graduate attributes approach' conceptualises employability

as a process, research that takes this approach is subsequently reviewed in chapter 3.

2.1.0 Search strategy

A systematic literature review was conducted using guidance from Aveyard (2014) to draw together a multidisciplinary and scattered evidence base, and to encompass key issues and arguments of the field. A range of sources were included in the review, such as grey literature, policy, and media, as well as the scientific literature (including empirical studies, review articles, and theoretical papers). The empirical research was scattered in the sense that it had been conducted across a range of disciplines, and was often small-scale, responding to specific intervention demands, or lacked a theoretical basis. The literature review inclusion criteria held two strands, detailed below.

Table 2.1: *Literature Review Search Criteria*

Employability	SRL	Identity
Employability	Learning	Graduate
AND undergraduate	AND employability	AND attributes
Employability	Self-regulated	Employability
AND student	AND employability	AND identity
Employability	Self-efficacy	
AND higher	AND employability	
Model	Metacognition	
AND employability	AND employability	
Framework	Epistemology	
AND employability	AND employability	
Graduate AND employability		

The review sought articles relevant to undergraduate employability in the UK

HE context. Table 2.1 (p.30) details the keywords which were searched for using three bibliographic databases (Primo, Web of Science and the EThOS: UK E-Theses Online Service). The search criteria were broadened or narrowed in response to issues such as interchangeable constructs (such as graduate attributes or career adaptability). For example, the search was also expanded to include work originating outside of the UK if considered relevant to the research question. There is, for example, an established literature base on employability originating from Australia such as the work of Bridgstock (2009). The search included terms of 'graduate attributes' and 'employability identities', used as a means to encompass identities literature relevant to students but orientating away from the workplace and also critical literature which rejects the term 'employability'. In combination with forward and backwards citation searches, this technique was successful, for example, yielding papers such as Jackson (2016) work on pre-professional identities. This approach allowed for an extensive identification of informative literature responding to the thesis aims.

There were also criteria to exclude literature from the review. For example, some articles related to postgraduate study, part-time, or mature students, thus relating to groups that may display a different employability profile to the standard-entry students upon which this thesis focused. Also, since the landscape for employability has substantially changed in recent years, except for use in the historical review, publications before the influential Dearing Report (1997) were also excluded. The selected time-frame acknowledged an important shift in perspectives about linear relationships between HE and preparation for the workplace, but also reflected the substantial body of work which has more recently explored employability.

The initial search strategy yielded 1,935 articles of potential interest. EndNote was used to compile this literature for review. Titles and abstracts of retrieved papers were

read and then marked for inclusion or exclusion based on the review's criteria. Articles identified as informative to the research questions were read, with the researcher noting related aspects of study methodology, findings, and implications for practice. Together these actions contributed to a thorough overview of the literature relevant to employability in the HE context.

2.2.0 A brief history of employability

Employability is a relatively new construct for HE, but the notion of preparing people for the workplace has a much longer history. The earliest use of 'employability' was during the 1880s, when the term 'unemployability' referred to an 'underclass' of people who were unwilling to, or unable to work (Welshman, 2006, p.578). The construct categorised people based on whether they were capable of employment or not. The importance of this categorising of people was that the 'unemployables' were a cause for concern, constructed as risky, defective people who could pollute the more affluent social classes (Gazier, 2001). Here, employability was linked to individual traits of character, moral strength or weakness, rather than an outcome of the education which society reserved for the more affluent or able[1].

A shift occurred in conceptualising 'unemployable' people following World War II. Due to the loss of human life and increased labour demand, there was a need to convert those considered unemployable into productive workers. New expressions of employability began to include the potential for development through the efforts of society and employers, overcoming attributions of unemployment to irredeemable

[1]The class-based hierarchy and moral dimensions of employability continue to resonate in recent research, being the focus, for example, of contemporary critical employability studies (e.g. Harvey, 2000; Morrison, 2013; Ratcliffe, 2013).

character defects, and enabling entry into the workforce (Chertkovskaya, Watt, Tramer, & Spoelstra, 2013). This newer concept of employability gained prominence throughout the 1950s, with government policy detailing a need for interventions which would change the attitudes of the underprivileged or unemployed to facilitate employment. As such, characteristic of more contemporary definitions, the therapeutic benefit for the individual began to feature in government policy through notions of a socio-medical employability (Garsten, 2003; Gazier, 2001).

Employability was now a key focus for post-war government ministries and who tied employability to the need for education, but the emphasis was on reducing unemployment and facilitating the transition from school to employment rather than on HE. At this point, HE was not significantly targeted by employability policies because of the expectation that graduates would readily transition into lucrative employment pathways based on university participation alone (Gazier, 2001; Holmes, 2001). Thus, while there was a move from a trait to a skills approach in employability, the development of skills were only held to be relevant for transitions from secondary education to employment.

During the 1960s, the skills-based approach to employability began to be applied to HE, in recognition of the opportunity to 'upskill' young people for the benefit of society. Government policy started to reflect a desire for stronger relationships between HE and industry that clearly linked HE to employability issues (Burgess, 1986; Yorke, 2010). This shift was markedly visible in the Robbins Report (1963), which made explicit for the first time the connection between HE, the production of graduates to meet the needs of the labour market, and a commitment to the widening participation movement. These policy changes resulted in substantial increases in participation in HE, which at the time was predicted to lead to significant social change, thus tying participation in HE with

government aspirations to narrow the gap between wealthy and poor.

In the 1970s and 1980s, the demand for graduates in the labour force continued to increase. And a key moment for conceptualising employability came with the Prime Minister's 'Ruskin College Speech' (2015), which explicitly shifted the responsibility of preparing students as skilled workers from employers onto HE. This change towards viewing higher education institutions as the site for employability against a backdrop of increased participation in HE resulted in enhanced attention to what constitutes employability engagement.

In a landscape of shifting understandings of participation in higher education, the transfer of responsibility to HE to upskill young people for the workforce was, in part, influenced by the popularity at the time of Human Capital Theory (Becker, 1975). Economist Becker's approach defined a theoretical framework which explicitly recognised that the knowledge and attributes of an individual are convertible to economic value. As such, the opportunity for the maximisation of individual employee outputs was placed in HE's remit, setting employability firmly on the HE agenda. This enduring shift in understanding of employability resulted in a discursive change from HE towards its students, from the promise of gaining graduate employment merely by participating in HE, towards the less certain and more amorphous contract that skills required to gain graduate employment can be gained through participating in HE (Forrier & Sels, 2003; Harvey, 1999; Yorke, 2006).

Throughout the 1990s, a 'Skills Agenda' emerged. This conceptualisation of employability laid out a plethora of terminology responding to employer demand for graduates with generalist skill sets. This emphasis on generalist skills is evident in the Dearing Report (1997), which set UK higher education's strategic direction for the following twenty years. The Dearing Report drew on an increasingly popular

concept of 'work readiness' to define employability, fuelled by developments in Human Capital Theory, but also industry interest in quality and productivity standards (for example, ISO9000). At about the same time, Hawkins and Winter (1996) published their influential description of a 'self-reliant' individual who embodied good graduate employability. Hawkins and Winter's ideal graduate had four broad skill categories (self-reliance, team player, generalist and specialist). The outcome of this shift was that employability became an essential goal for higher education and one that gradually permeated the national consciousness (Wilton, 2011).

The government focus on HE as a source of employability training, and the skills-agenda approach as the method for this training, led to increased scrutiny from multiple stakeholders about HE's ability to produce graduates fit for the labour market (e.g. Chertkovskaya et al., 2013; Gazier, 2001; Holmes, 2006; McQuaid, Green, & Danson, 2005; Pegg et al., 2012; Tomlinson, 2010). The Quality Assurance Agency (QAA), Teaching Excellence Framework (TEF), the Higher Education Academy (HEA), and other discipline-specific representative bodies, such as the British Psychological Society (BPS), all collaborated with HE to facilitate the generation and dissemination of appropriate employability practice to educators and students. This emphasis on a broader employability educational responsibility transformed the undergraduate experience from the learning of discipline-specific knowledge to a potentially more amorphous preparation for employment (Pegg et al., 2012). The change in discourse of HE as the route to preparation for employment marked the point at which two notions of employability converged. These were, first, that the role of HE is to prepare individuals for employment in the form of a 'skills agenda', and second, that employability is about self-development towards lifelong 'portfolio careers'. These constructs are discussed below.

Alongside government and educational institutions development of a skills-based approach to employability, were developments in the concepts of work and career that also shifted understandings of employability. As Wilensky (1960, p.554) argued, traditional definitions of a career encompassed 'a succession of related jobs, arranged in a hierarchy of prestige, through which persons move in an ordered, predictable sequence'. Within such a career, individuals could also reasonably expect their career trajectory to be restricted by scope and locality. The anticipation being that, on entry to university a student would commit to a discipline which would position them on a career pathway. Moreover, that upon graduation, the person would enter a career which could be defined by their geographical location or social context, that they would stay on this career pathway, and make orderly and incremental adjustments in their position in the workplace. However, by the 1990s, this traditional hierarchical career model was changing, replaced by a supposedly more liberating 'protean', boundaryless, or 'new worker' notions of employment (Hall & Mirvis, 1996). In these new models, employees were anticipated to make multiple career changes, both sidewards and upwards towards ultimate success, and importantly would accumulate skills and knowledge across the lifetime as they did so.

Supporters of these new-worker models argued that portfolio approaches to employment, where people collect varied skills and experiences, provide a means of fulfilling individual potential, while simultaneously contributing to a flexible and skilled workforce (Hall, 1996; Hall & Mirvis, 1996). These arguments mapped onto developing ideas of citizenship produced by neoliberal government policies, in which the ideal citizen was conceptualised as psychologically reflective, flexible, and autonomous so that they could respond to the fluctuations of market-led economies (Kelly, 2007). Such 'psychologising' was incorporated into the concept of employment

to such an extent that by the end of the 1990s, employability was understood as a set of attributes which enable people to reach their full potential, rather than to simply achieve full employment (Cohen, Duberley, & Mallon, 2004; Finn, 2000).

In the context of the flexible demands of a protean career, a different approach to employability was needed (Arthur & Rousseau, 1996; Hall, 1996; Hall & Mirvis, 1996). In the portfolio-worker model, skills were still required to obtain employment, but in addition, people also needed to learn how to learn skills. This learning to learn was associated with the ability to be reflexive so that people could autonomously identify what skills were needed for their next move, seek out ways of developing them, and monitor their progress towards their next employment goals. This new orientation to learning skills meant that employability was not just a function of skill acquisition, but also as a function of an individual's ability to work on their psychology, particularly regarding their capacity to be reflexive and self-regulating in their learning. In response, supporting individuals to engage with a portfolio of broad skills and experiences towards graduate employment became a major feature of employability policy in contemporary HE institutions.

But how to best support students to develop such a portfolio remained a challenge. Multiple models of employability were developed to conceptualise employability in the HE setting, and from which employability interventions could be developed for students. However, these models were often informed pragmatically, through observation and practice, thus lacking an empirical evidence base, while empirical work on employability remained scattered, complex, and divided. Responding to this landscape, Holmes (2013) offered a typology of the employability literature in which employability was understood in one of three ways, as a position, a possession, and/or as a process. This framework is used to structure the literature review of this thesis,

with the literature relating to the 'possession' and 'position' of employability being discussed below.

2.3.0 The Possession and Position of valued employability capitals

Holmes (2013) described how perspectives on employability as possession and position are informed by the work of sociologist Bourdieu, in particular, his idea of capitals. Bourdieu described his theory of capitals as follows:

> 'The social world is accumulated history, and if it is not to be reduced to a discontinuous series of instantaneous mechanical equilibria between agents who are treated as interchangeable particles, one must reintroduce into it the notion of capital and with it, accumulation and all its effects. Capital is accumulated labour (in its materialized form or its 'incorporated,' embodied form) which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labour.' (Bourdieu, 2011, p.46)

Bourdieu thus conceptualised capital as a form of currency, something which has worth and can be exchanged for other things of worth. Capital is a not merely material, in the sense of money or goods, but also encompasses cultural and social 'accumulations'. Cultural capital relates to the beliefs, knowledge, and skills which can be passed down through social systems via inheritance. For example, the careers of their parents may influence students' knowledge about career pathways. Social capital comprises of networks of people that provide access to the cultural capital and material resources in the field of play, such as knowing the owner of a company who is willing to offer a work placement. Bourdieu considers cultural and social capital as significant in so far as they contribute to economic capital, so that the social networks of working class people may be under recognised because they do not appear to produce an obvious

economic advantage in the graduate labour market. Cultural and social capital are therefore not simply knowledge about the world, but instead, comprise the mechanisms of power. Bourdieu's concepts thus illuminate the structures of a phenomenon within relationship networks.

By taking a Bourdieusian-informed approach to graduate employability, students' employability can be understood to be determined both by the capital they possess and how the graduate labour market values that capital. A valued capital of employability is the degree, for example, but only in so far as individuals with power, for instance, graduate employers, value it. Thus the value of the degree may be compromised if graduate supply outstrips labour market demand. The fluidity of capital value can go some way to explain the confusion that students may face when orientating their learning towards employability. Maher (2011) propose the metaphor of entering into a game, a game which has its own explicit and implicit rules. Competence to play the game is unequal, with some lacking the skills and knowledge that facilitate success. While any individual may enter the game, competence is determined by the participant's access to the valued capitals of that game. Therefore, to successfully engage in employability, students need an understanding of capitals valued in the social context. Furthermore, the rules of this game may be masked behind an ideological screen, such that while education is believed to facilitate social mobility, HE may actually favour systems that reinforce inequality and privilege through the way employability practices are organised.

Building on the notion of students 'holding' a collection of skills and experience, Holmes (2013) identified a possession approach to graduate employability, which aligns closely with ideas of a skills agenda and notions of human capital introduced earlier. This perspective of employability imagines students as 'holding' or being able to

evidence skills and experience, and is familiar to educators in the HE field, based on the premise that a student's education and experience operate in ways that maximise their graduate labour market potential (Cranmer, 2006; Harvey, 2003; Robertson, McMurray, & Roberts, 2012; Tholen, 2014). The approach is also observable in available models and definitions of employability. For example, Yorke's (2006) widely referenced definition of employability below outlines employability as a 'set of achievements' that make students more likely to be successful across a range of contexts including in the workforce.

> 'A set of achievements - skills, understandings and personal attributes - that make individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves the workforce, the community and the economy.' (Yorke, 2006, p.8)

Drawing on the work of both Holmes and Bourdieu, the set of achievements included in the definition above can be conceptualised as employability capitals, since they are understood by HE and other stakeholders as the possession of skills that enhance students' likelihood of gaining graduate employment. Any employability practice can be considered as a capital, in so far as it can convert to economic capital. For example, a student who 'holds' culturally informed notions of what it means to be polite may be considered as having more employability. However, being polite can also convert to economic value, in the sense that being polite may secure a job which then leads to more material resources and monetary wealth. Equally, the value of this capital is fluid and has the potential to disappear when being polite no longer matches the culturally-informed demands of the job. The literature review identified four kinds of practices that make students who engage with them more likely to have high employability. Through a Bourdieusian lens these are conceptualised as

employability capitals. These four employability capitals are academic study, work experience, careers guidance, and transversal skills. These capitals are briefly reviewed below, as are the problems identified with this approach.

2.3.1 Getting a degree. The most clearly defined capital of employability in the HE context is the degree itself, based on its role in upskilling the workforce and reducing unemployment. The UK has 1.7 million undergraduate students, a 14% increase from the year 2000 (HESA, 2015), and there is evidence that university degrees enhance employment. Graduates show higher employment (86.9 % of graduates compared with 70 % of non-graduates), more career progression in skilled posts, and reach their earning peak earlier (BIS, 2015; ONS, 2016). Consequently, significant numbers of students participate in HE specifically to enhance their graduate-employment prospects. For example, Tomlinson (2008) interviewed fifty-three final-year undergraduate students and demonstrated that students' understanding of the degree incorporates strong ties between HE and a higher graduate earning potential.

However, increases in student numbers have led to concerns about oversupply in the graduate labour market (Branine, 2008). Tied into these findings are concerns about the shifting value of the degree as more people have them and that while in the past the degree may have offered an opportunity to differentiate potential employees from non-graduates, a degree has become a prerequisite for ever-expanding categories of employment (Brown, Hesketh, & Wiliams, 2003; Tymon, 2013). The potential devaluing of the degree is linked to an associated increase in pressure for students to 'add value' to their investment through participation in action outside of their formal learning.

How employability is measured further complicates evaluations of the degree as a

form of economic capital. In the UK, graduate employment status six months post-graduation is assessed by the Destination of Leavers from Higher Education (DLHE) survey as a measure of HE institutions' efficacy at enhancing graduate employability. The DLHE then reports the employability statistics on the UNISTATS student-choice website and performance-based league tables such as the Guardian University Guide and Global Employability University Ranking. Widely criticised and under reform, this approach to employability has been designated as 'hollowed out', in reference to the orientation away from learning and towards performance outcomes to the detriment of institutional and student engagement with the construct (McQuaid et al., 2005, p.205) and because it fails to measure the potential mid and long-term economic advantages of a degree (Moreau & Leathwood, 2006). The undergraduate degree as a capital is further complicated by differing values attached to a student's academic performance. For example, there is evidence to suggest that graduate employers show a preference for degree classifications of 2:1 and above ((Pitcher & Purcell, 1998), although Smetherham (2006) showed a more complicated picture for first-class degrees, whereby positional advantage cannot be predicted by academic performance alone.

Upward trajectories in student participation in HE and established relationships between HE and graduate employment ensure that the degree and employability are entwined. However, concerns about a shifting graduate landscape and diverse and narrow understandings of employability among different stakeholders produce considerable complexity in the relationship between employability and graduate employment. As a result, students are currently under pressure to direct their learning towards more than the degree alone, but also towards three further capitals of employability, work experience, careers guidance, and transversal skills, these are discussed below.

2.3.2 Work experience. In a context of increasing student numbers, a different way of differentiating students' employability is through their engagement with work experience (Knight & Yorke, 2002; Helyer & Lee, 2014; Holmes, 2001). Work experience encompasses diverse activities including short- or long-term work placements, internships, employment, work-shadowing, extracurricular activities, and volunteering (Cranmer, 2006; Lees, 2002). Evidence shows that increasing numbers of students are engaging with work experience (Elias & Purcell, 2004), which is acknowledged by a range of stakeholders as an 'entry ticket' to employment (Weiss, Klein, & Grauenhorst, 2014). Findings supported by a range of policy documents which highlight the importance of work-based experience as a form of employability engagement, with the gold-standard being those produced through collaborative relationships across HE, students, and employers (Nunn et al., 2008; Nash, 2014).

The employability research literature also reflects the importance of work experience. Employers are purported to value work experience over and above excellent academic grades (Branine, 2008). Therefore, for a student to have 'good' employability, they should typically be able to evidence some form of work experience. Such is the status of work experience that it is hard to imagine the operationalisation of employability without reference to it. Brown et al. (2003) allude to this point by saying that an individual's worth is no longer evaluated by academic currency, but instead by the economy of experience. This emphasis is partly due to the value and influence of notions about experiential learning. Here, the 'doing' of learning, which can be achieved more readily through work experience, is understood as an essential element within a learning cycle (Kolb, 2014).

However, the emphasis on learning outside of the classroom is not without

critique. Weiss et al. (2014) indicate that work experience is most beneficial when undertaken voluntarily by the student rather than a part of their formalised learner journey. Furthermore, concerns are raised about what work experience constitutes as meaningful, especially in relation to whether work experience is pitched at the expected level for graduate roles (Clarke, 2017). For example, Hinchliffe and Jolly (2011) showed that 'non-graduate' experience was ranked by graduate employers as the second least desired employability skill. These findings raise questions about the utility of students' efforts to gain work experience but also importance about the value of the experience which they gain.

The question of utility is also relevant when some literature suggests that work experience preferentially benefits more academically successful students, who may have 'spare' cognitive resources to direct their action (Driffield et al., 2011; Reddy & Moores, 2006). The complexity of what actions are valued by employers also raises questions for the student about where to most fruitfully direct their energy (Wilton, 2014). Should they focus their attention on gaining an experience-based portfolio or the coveted educational goal of the 'essential 2:1', for example? (Pitcher & Purcell, 1998; Smetherham, 2006). Such thinking also contributes to research showing that the benefits of work experience in the graduate labour-market advantage being short-lived (Weiss et al., 2014).

Understanding work experience as an employability capital leads to discussions about who might be excluded or disadvantaged in the field, especially when recommendations to gain work experience are based notions of undergraduate students as well-resourced individuals (Paisey & Paisey, 2010; Stevenson & Clegg, 2011). While work experience is widely understood as valued capital of employability, a limited literature questions the basis for this prominence, especially in the context of students

rationing their time and energy, and on the basis that individuals may be disadvantaged or marginalised by factors beyond their control. One way in which the HE institutions attempt to mitigate these challenges is through careers guidance, as the next section outlines.

2.3.3 Careers guidance. In the context of a complex and fluid workplace, good graduate employability engagement is also predicated on access to careers guidance. Careers guidance encompasses expertise relating to the shifting demands of the graduate labour market and the expectations of recruitment processes from which students can benefit. Students may access careers guidance to identify and explore the labour market, but also to engage in a range of practices of the self either in terms of self-presentation (for example, CVs generation and interview practice), or using of social networks, but also in developing career goals (Helyer & Lee, 2014; Knight & Yorke, 2002; Tomlinson & Tomlinson, 2017). Careers guidance is also visible in universities through work which extends beyond the classroom, through encouragement to engage in reflective practice or through the recording of skills and experience, for example using mechanisms such as the Higher Education Achievement Report (HEAR) or institution-specific rewards for employability (e.g. Bangor Employability Award, or the University of Aberdeen STAR Employability Award). These actions may function to produce a record of personalised learning and motivate towards, or reward the student for their employability action (Pegg et al., 2012). There is a range of conceptual frameworks that inform careers guidance, for example, the popular DOTS model (Law, 1999). A review of these frameworks is beyond the scope of this thesis, but the main points pertinent to the research questions of this thesis are outlined below.

There is some evidence that career guidance activities facilitate employability.

Praskova, Creed, and Hood (2015), while exploring employability from a career-identity perspective in a large-scale study of 667 Australian undergraduate students, showed statistical support for a positive relationship between engagement with career guidance and self-perceived employability. Jackson and Wilton (2017) demonstrated that engagement in careers guidance promotes self-perceived employability, with work experience operating as a mediator of this process. These findings suggest the value of incorporating notions of career guidance into employability, showing that students who do engage then receive a reward for that engagement in the way of enhanced self-perceived employability or graduate employment. However, as with other employability practices, there is evidence that the relationship between engagement with career guidance and employability may not be straightforward. Careers-based action tends to be based on the assumption that students have a career goal to which they can direct their strategies, (Artess et al., 2017), but the literature warns that students do not necessarily have a career goal and so they can not engage in linear, 'rational', or strategic decisions towards their graduate plans (Greenbank, 2014; Jackson, 2014a).

A core issue in the literature indicates that many students do not participate in the careers guidance opportunities available to them, either because of a lack of value for the action or because the opportunities on offer are out of touch with current demands of employability and career pathways. Not engaging with careers guidance is particularly problematic given that students may not understand the graduate labour market. For example, through interviews with forty-five new graduates McKeown and Lindorff (2011) demonstrated a misalignment between inflated graduate expectations and the reality of a competitive and 'squeezed' graduate labour market. Contemporary responses to the problems of student's lack of engagement with careers and their

potential misunderstanding of their opportunities on graduation have been to move away from career goals and towards the reframing of engagement with careers guidance as part of a broader work on the self (Bridgstock, 2009; Kalfa & Taksa, 2015). This movement is supported by findings from outside HE that workers who orientate themselves towards the ideology of a protean career are more likely to consider themselves as having greater employability (Lin, Lin, & Li, 2013). These findings suggest that while there may be general acceptance for the value of careers guidance, there is also complexity which may impede engagement.

Thus far, the review has explored academic study, work experience, and careers guidance as valued capitals of employability, in this next section transversal skills are discussed as the final capital of employability.

2.3.4 Transversal skills. The increasing demands of global and knowledge economies, in addition to an emphasis on psychological literacy, have broadened the skill sets needed for entry into the graduate labour market beyond the discipline-specific knowledge that students gain from an undergraduate degree (Coetzee, 2012). Earlier in the chapter, a shift was identified from a university degree being a guarantee of graduate employment to an acknowledgement that skills are required to gain employment. Resulting from this emergent 'skills agenda' was a focus on embedding skills into the holistic student experience (Holmes, 2001). Skills are defined as a 'series of operations, capable of repetition, with an outcome that is measurable' (Hinchliffe, 2002, p.189). Therefore, the basic premise is that, alongside discipline-specific knowledge, there is a requirement for evidence that students can 'do' the things that graduate employers want them to do.

The focus on the acquisition of generalised skills as a feature of employability is

evident throughout the literature. In policy publications, such as the 21st Century Skills: Realising Our Potential Report (DfES, 2003, p.6), generalised skills such as IT or leadership are described as a 'national asset', vital for competing in a global economy. Similarly, the influential Leitch Review of Skills (2006), commissioned by the British Government, sought to reach national employment objectives through a doubling of skills attainment by 2020, with a specific emphasis on graduate employment. This emphasis on skills development from government ministries has informed the frameworks for HE pedagogic practice and strategy.

A plethora of government and academic literature sets out the skills that employable students should possess or strive for. To describe these skills a range of terms have been used that emphasise how such skills may sit within or apart from academic skill sets (Coetzee, Ferreira, & Potgieter, 2015), such terms include transferable, generic, attributes, global, key, core, hard, and soft. This thesis uses the term 'transversal' for the 'skills, competencies, values, and attitudes required for the holistic development of learners' (UNESCO, 2015, p.2). This definition reflects the overlap of higher education and employment, and so is particularly relevant to the context of graduate employability.

The available taxonomies of transversal skills are vast, but largely based on practice in HE rather than research, and include, numeracy, information technology skills, and critical analysis, for example, (CBI, 2011; Lanning, Martin, & Villeneuve-Smith, 2008; Rees, Forbes, & Kubler, 2006; Robinson, 2000). Appendix Table A.1 (p.367) provides a comparison table of skills used in HE, which was also used to inform the development of a measure of transversal skills in Study 1.

A range of employability-focused interventions have been designed to develop transversal skills in students. Such interventions occur across pedagogic practices and might include module content and outcomes, industry-accredited curricula, sandwich

courses, work experience, and employability achievement awards (Harvey, 2005; Yorke, Knight, Moon, Layer, & Moreland, 2004; BIS, 2011). These activities can be 'bolt-on' and non-compulsory, or 'embedded' in the HE curriculum (Pegg et al., 2012). However, despite considerable investment and attention, a dominant theme across the employability literature is that many graduates lack the appropriate skills, attitudes and dispositions to participate effectively in the workplace (Cumming, 2010; Davies, 2000).

Employability, as measured by transversal skills, would indicate that graduates underperform in the graduate labour market. For example, the UK Commission for Employment and Skills (2009, p.4) stated that current employability levels were 'not good enough', a trend which has since been identified as downward (UKCES, 2014). For example, in 2011, the UK ranked 24th for intermediate level skills (graduate level), despite it being the 6th biggest world economy (CEBR, 2016). While, a survey of 326 graduate employers reported that 24% had been unable to recruit graduates in the previous 12 months, with a shortage of transferable skills cited as the cause (UKCES, 2014b). These findings indicate that there is no clear pathway between the focus on developing employability capitals in HE and the production of an appropriately skilled workforce.

Conceptual complexity at the institutional level may be a reason why employability engagement appears to be insufficient. Although there has been overall 'buy-in' and investment into the contemporary concept of employability and those that support it (e.g. the HEA), there is also evidence that the support, execution, and engagement of employability practices differ widely amongst HE institutions (Bennett, Dunne, & Carré, 1999; Higgins, 2012; Jackson, 2014b). There are concerns about whether HE skills criteria map onto what employers understand employability to mean or translate to actual employment (Hinchliffe & Jolly, 2011; Holmes, 2013; Stewart &

Knowles, 2000). Since there is no clear consensus as to the specific skills or activities required to demonstrate employability (Holmes, 2013), an employer may consider a student with employability as a person who is 'work ready'. In contrast, the HE institution may understand successful employability as students having a choice of employment on graduation (Brown et al., 2003). The need to understand employers' understandings of employability, the landscape of valued 'possessed' capitals, and differences in institutional approaches, therefore place considerable demand on HE to facilitate generalised learning towards employability.

Furthermore, it is argued that student understanding of employability is too narrow to meet the demands of a graduate labour market. Tymon (2013) showed that, although undergraduate students express a general value of skills, they struggled to articulate this within the context of their undergraduate degree and to identify with recognised definitions of employability. This finding was supported by Kavanagh and Drennan (2008), who demonstrated that students tend to neglect workplace orientated skills, even though employers demand them as a graduate skill. Moreover, Clark and Zukas (2013) through a case study of a student's transition to graduate employment, argued that there is a deficiency not only in how students understand their own skill set, but how this relates to their broader field. Together these findings suggest that while skills may generally be accepted to be a part of employability, their complexity presents barriers to engagement.

In summary, the employability literature reviewed above yielded four core practices of employability. These practices include gaining a degree, having work experience, engaging with careers guidance, and developing transversal skills. Through the lens of employability as a possession, engaging in these practices allows students to develop and thus 'possess' valued attributes which then position them in valued ways that are

more likely to lead to graduate employment.

Through a Bourdieusian lens, practices of employability (gaining a degree, experience, careers guidance, transversal skills) can be conceptualised as forms of employability capitals. From this perspective, a student's employability is determined by the capital which they 'hold', although the value of this capital will be determined by the social structures in which they are located. For example, a psychology student's 2.1-degree classification may meet a cultural-influenced baseline and indicate the possession of critical or evaluative abilities. Their work experience in a hospital may build on the possession of a degree to show that the student has the skills and resilience to navigate the NHS recruitment system, while 'good communication skills' in the student's application form might further consolidate the likelihood of them being understood as having a range of valued attributes, so that combined, their employability capitals can be converted into economic capital in the form of a graduate level job in mental health. Notions of capital can thus be applied to employability practices since Bourdieu's theory can illuminate employability at both a social and individual level. However, this possession approach to employability does not fully account for the social context and relational networks of such possessions, a critique that is developed in the following section.

2.4.0 Critical perspectives of the Possessions approach to employability

As outlined above, there have been significant changes in the core function of universities, from social institutions where learning was valued in its own right, with the assumption that, as a relative elite, graduates would find lucrative employment, to institutions in which learning is undertaken to meet economic, societal, and global labour-market demands (Boden & Nedeva, 2010; Gumport, 2000; Hillage & Pollard,

1998; Star & Hammer, 2008; Yorke, 2006). In response to such changes, a range of concerns have been raised about locating the employability remit within HE, creating the potential for resistance to the construct from all stakeholders (Artess et al., 2017). These concerns relate to whether HE is best placed to respond to demands of a fluid labour market, and over the development of a consumer orientation in students enrolled in HE, as outlined below.

In tasking HE with meeting the needs of neoliberal economies, employability has been called 'instrumentalism gone mad' (Glover & Longstaff, 2015, p.1) and considered a threat to traditional ideals of education or knowledge for its own sake (Arora, 2013; Chertkovskaya et al., 2013; Harvey, 2000). Academic staff have also expressed concerns about facilitating employability, given that it is traditionally outside of their teaching areas and expertise, and in the context of external influences such as social disadvantage and labour-market demand (Morrison, 2013; Ratcliffe, 2013). Indeed, a range of factors are out of the control of the teaching and support staff (e.g. careers officers) who might be expected to deliver employability related curricula. These factors include increases in student numbers that create increased competition for graduate-level jobs; economic disruption and the fluidity of the labour market; as well as changes in employment practices that include increased portfolio working and casual, short-term, and zero-hour contracts. Such factors make young graduates vulnerable to precarious work and call into question the power of a degree to provide access to graduate employment (Elias & Purcell, 2013; Tomlinson, 2007; Wilton, 2014). The focus on employability may also mean that academic staff are both required to teach and evaluated on their ability to teach skill sets outside of their areas of expertise, and which may also potentially be ideologically incompatible, which may account for their resistance to employability (Morrison, 2013; Ratcliffe, 2013).

In this context, Harvey (2001) is critical of the operationalisation of employability in HE as a 'magic bullet' to respond to the demands of a fluid labour market, despite the broad patterns which point towards enhanced labour market positioning for graduates in comparison to non-graduates. Similarly, Sir Howard Newby, in his 2003 Higher Education Council for England annual conference speech, warned that these conceptualisations of employability would lead to students increasingly seeing themselves as consumers, with employability viewed as a product or commodity. From this perspective, the development of employability as a tool for management and consumer choice has shifted HE further away from traditional understandings of learning (Pegg et al., 2012; Smith, McKnight, & Naylor, 2000).

The critical literature highlights the potential for resistance to the pressure to meet the needs of a graduate-labour market and respond to the significant changes in expectations as to what it means to be educated and have a graduate career. These issues have implications for the sector, but also for students who are making sense of their engagement with employability practices in such a contested space. Student 'buy-in' to employability interventions is also further complicated because students may lack the underlying social and economic capital to proceed (Stevenson & Clegg, 2011; Paisey & Paisey, 2010). One of the ways in which conceptualising employability as a possession is problematic is precisely this lack of contextualisation, and a lack of recognition of the subtle barriers that students may face to engagement in employability in the HE setting (Holmes, 2013). For example, students not having the social capital to access high-quality work experience, not having the cognitive developmental abilities to manage the competing time/energy demands to focus on study or gaining other employability capitals, and not having control or understanding of a fluctuating graduate jobs market.

2.5.0 Summary

This chapter presented historical conceptualisations of employability as a trait, the emergence of a skills approach, and the increased expectation for HE to develop students' skills for the learning of skills. It described how these shifts occurred in response to a range of factors, including government policy and economic changes that consolidated the interconnectedness of HE and employability. As a result, increasing graduate employment opportunities is a major reason for students to participate in HE. Students now need to direct their learning in ways which are different from the past, with one avenue of research pointing towards the need for students to engage in four practices associated with employability, namely, getting a degree, having work experience, engaging with careers guidance and acquiring transversal skills. These practices are understood to produce attributes that can be conceptualised as employability capitals that students can convert into economic capital in the form of getting graduate level employment. However, critics of this 'possession and position' approach point to a more complex relationship between HE and employability, troubling the pathway between a possession approach to employability and enhanced labour market performance.

Reviewing the possession and position conceptualisations of employability thus highlighted some limitations of thinking about employability in this way. One response to such critiques of employability within HE has been the graduate attribute approach, led by Holmes (2013, 2015), who argued that, rather than viewing employability as a possession when not all students can possess such capitals because of wider social factors, employability could be reframed as a process of identity development that all can participate in. Chapter 3 explores this more psychological way of conceptualising

employability, considering Holmes' third 'process' approach and building towards the rationale for the thesis research questions.

Chapter 3

'Processual' Employability

As argued in chapter 2, Holmes' notion of employability as possession, position and/or process provides a useful framework for giving shape to a scattered and diverse literature. Reviewing work that could be categorised as taking a possession or position approach, chapter 2 identified four employability capitals (academic study, work experience, careers guidance, and transversal skills). These capitals have utility in terms of being associated with gaining graduate employment, but possession and position approaches were critiqued for assuming both a level playing field in students' access to such capitals and failing to engage with factors outside of students' control such as fluctuations in the labour market. The presence of inequalities and contextual fluidity (e.g. of the labour market) may account for the lack of a consistent correlation between engagement with practices of employability and graduate employment, whereby it is possible for students to engage with employability and yet be unemployed or underemployed, and for other students to achieve graduate employment without active engagement in employability at university. Holmes argued that the challenge for HE institutions in such a contested and multifaceted landscape is to develop a framework which both accommodates the demands of the graduate labour market while maintaining an ethical, inclusive and affirmative approach to students' learning towards employment.

Responding to this challenge, Pegg et al. (2012) suggested that a radical culture change in HE is required to meet the shifting demands of student employability.

Similarly, Holmes (2013) argued that conceptualising employability as a possession and position alone is flawed, and proposed a processual approach instead. In understanding employability as a process, the focus of employability training reorientates to the means by which students might come to acquire attributes that employers find desirable. From this perspective, identity is suggested as the mechanism by which employability might be developed, through facilitating in students an identity as a 'skilled graduate'. This shift towards identity development marks a move to a more psychologised conceptualisation of employability, one which is not limited to the possession of valued capitals, but can be characterised as a longer-term 'project of the self'. This shift can be understood as a move in HE from a 'skills agenda' to a 'graduate attributes' movement.

Below, the graduate attributes literature is evaluated, followed by a discussion of how the graduate attributes approach fits into models of self-regulated learning, and whether there is empirical support for this thesis' research question relating to the value of self-regulated learning to employability.

3.1.0 Graduate attributes

Chapter 2 indicated tensions surrounding the need to have valued skills (that might lead to the ability to perform well in work) and the actions purported to foster them (such as engaging in work experience). Universities understand that students need to 'possess' certain skills to be employable at the graduate level, and that these can be, but are not necessarily, acquired by engaging in academic study, careers engagement, work experience, and transversal skills. The pathways between these practices and graduate employment are not linear, and engagement may be impeded by factors beyond the student's control. Furthermore, understanding employability as a collection of skills is problematic for Holmes (2001, p.2), who proposed that it is 'by no means clear

that employers should want skills per se; rather, they want the graduates they recruit and employ to perform in desirable ways or 'competently and effectively'. From this perspective, it is the performance or doing of the transversal skills that is important to foster rather than the possession or evidence of that engagement.

One way in which the field has evolved to accommodate the tensions surrounding valued skills and the actions purported to foster them is through the adoption of a graduate attributes approach to employability (Coetzee & Harry, 2014; Daniels & Brooker, 2014). Here, a psychologised employability is defined as a process which occurs through the development of an enhanced, 'pre-professional', or emergent identity (Holmes, 2013, 2015). Identity is a person's understanding and expression of the self, defined as 'an internalised set of role expectations, which is fluid and flexible' (Simon, 2008, p.23), and Holmes argues that a graduate identity is essential to achieve successful graduate employment:

> 'Put simply, to be successful an individual must become a graduate, not just in the formal sense of being awarded a degree but in socially and biographically significant terms, whereby they act in ways that lead others to ascribe to them the identity of being a person worthy of being employed (i.e. in the kind of job generally considered appropriate to someone who has been highly educated).' (Holmes, 2013, p.549)

Employability identities 'package' the collection of skills and experience valued in a possession approach; a package which the student must relate to, but also which fits within the broader picture of a project of the self towards graduate employment. For example, 'The Sheffield Graduate'[1] packages a collection of academic and extra-curricular activity by discipline-based knowledge, scholarship, application and development. The purported advantage of an identity approach is that the work

[1] https://www.sheffield.ac.uk/sheffieldgraduate

undertaken will enhance students' personal development regardless of employability outcome, but HE and students can retain the aspiration that this work on the self will also enhance employability.

Holmes defines employability as a 'becoming', the development of a competent, educated identity that is recognisable to others. Conceptualising employability as a becoming draws on ideas of an 'identity project' (Giddens, 1991) or Goffman's (1959) 'moral career', to conceptualise issues of individuality and fluidity within the construct of employability. In drawing on ideas about contemporary subjecthood, the graduate attributes approach was able to examine issues of identity, engagement and resistance to the practices of employability. This approach provided new directions for universities developing employability interventions in which students were supported to develop graduate employability identities by encouraging the behaviour, skills acquisition and attributes that make up such an identity (Holmes, 2001).

There is a growing body of evidence in support of the graduate identity approach. Young adulthood, the age at which the majority of students enter undergraduate programmes in the UK, has been shown to be a key developmental point for identity formation and development (Erikson, 1994; Tomlinson, 2010; Tajfel, 2010), suggesting an optimal time for universities to engage with graduate-identity development. Research has also shown important correlations between employment outcomes and graduate identities. For example, Jackson (2014c) reported that students with a positive graduate identity were more likely to achieve full-time employment. While Stott, Zaitseva, and Cui's (2014) research with a sample of Outdoor Education undergraduate students demonstrated how a strong 'fresher' employability-orientated identity, developed through pre-HE engagement with the field, supported engagement with further positive, identity-forming practices and graduate employability.

However, other studies point to considerable complexity in student's identities that relate to employability. For example, some literature draws heavily on the work of Brown and Hesketh (2004), who used an identity framework of 'players' and 'purists' to categorise participants based on the different approaches to employability they had. In this work, notions of graduateness and authenticity were entwined to predict student engagement with employability. Neither players nor purists types were seen to differ in ambition, motivation or willingness to act, but instead employed different forms of sense making regarding employability engagement that opened up or closed down possibilities of action for the student. Players were distinguished by spending time learning the rules of the game and correspondingly acting within those boundaries. Purists, while also aware of the rules, resisted gameplay through a preference for an 'authentic' identity.

Students were conceptualised as gravitating towards being a player or purist type researchers using this approach acknowledge much variability in between. For example, in a subsequent study by Greenbank (2014) who interviewed thirty-four students about their engagement in extra-curricular activities towards graduate employment, Greenbank argued that three dimensions appeared to influence students engagement with employability practices. These dimensions were on a continuum of present to future orientation, adversity to risk-taking, and purist to player orientation. The implications being that, depending on where students could be positioned on these dimensions, taking up identities that mainstream employability demands may be experienced as inauthentic, which results in disengagement from the valued practice.

The importance of time is also highlighted by other research, especially future orientation, since employability as it is currently operationalised in HE, places a demand on the individual to direct their learning towards a future goal of graduate employment.

Such research highlights potential barriers to the formation of such future-oriented identities. For example, a key study by Stevenson and Clegg (2011) explored the complexity of employability through 'possible selves' theory. Through a survey and interviews with sixty-one undergraduate students, the notion of employability was shown to be associated with temporalities. The authors identified students as either future or present focused, with a smaller group who displayed a more integrated sense of past, present and future selves.

The future-orientated students were categorised as 'highly-developed', aligned with notions of ideal employability. These individuals were hard-working, highly skilled, motivated and committed. Present-orientated students fell within two groups. In the first, students were fully immersed in their HE experience through a combination study or leisure, but their engagement with the demands of graduate employment was absent and not rehearsed. The second group also orientated towards the present, but these students were identified as having blocked employability identities because of immediate barriers to their employability, such as caring obligations. A final smaller group was seen to more readily integrate their past, present, and future selves. For example, they talked about volunteering as an altruistic action in the present, but also connected this action with their future graduate employability. These temporal positions either facilitated or blocked their engagement with employability practices. For example, a preference for future-orientated identities to direct current behaviours led to strategising extra-curricular activities towards graduate employment rather than engaging in non-graduate employment to earn money. Across the groups, the potential for class differences was also identified through differences in their access to social and economic capital.

Other complexities also affect the formation of graduate employability identities.

Pisarik, Rowell, and Currie (2013), for example, also drawing on possible selves theory, showed a gap between HE understanding of employability attributes (driven by a possession approach) and students' own valued attributes. Using content analysis to explore employability through work-related daydreams, forty-six undergraduate students kept a diary, resulting in 171 recorded daydreams. The findings suggest that these students understand graduate identity as encompassing a broad range of issues relating to the self, including concern for others, work-life balance, 'nice' clothing, cosmopolitan locations, and occupational prestige. Cutts, Hooley, and Yates (2015) present similar results from interviews with 13 undergraduate students which highlight students' nuanced understandings about clothing and appearance that contributed towards their ideas about graduate employment. Here, students spoke about their anticipation of being judged by clothing, hair and makeup in ways which are not commonly included within employability models and training. These concerns about an ideal graduate appearance create the potential for the acquisition of graduate employability identities to fall along lines of gender, class, ethnicity and appearance, disadvantaging or excluding those who do not meet societal ideals and norms of appearance.

Other research also raises concerns about disadvantaged students within a graduate attributes approach. Crozier, Reay, Clayton, Colliander, and Grinstead (2008) analysed 88 interviews with middle class and working class students as part of a larger mixed-methods study. Drawing upon the work of Bourdieu, HE was conceptualised as a structure that interweaves with the capitals of middle-class students to facilitate future privilege and advantage in ways which were inaccessible the working class students. For example, middle-class students explained university as an opportunity to make social connections and develop their identity. In contrast, for working-class students

the university experience was a means to an end, and they were more likely to maintain friendships with their home communities.

Further critique that the graduate attributes approach, much like the possession/position approaches, masks structural inequalities comes from the argument that the graduate attributes approach chimes with neoliberal notions of personal agency and responsibility, in which students are held accountable for their life course through an individualist framework that constructs them as individuals with abundant resources. For example, Allen, Quinn, Hollingworth, and Rose (2013) argued that to understand oneself as an employable student who is self-governing and 'resource-ful' requires having access to the capitals which underpin this becoming, which has implications for students whose access to such capitals is limited. In Allen et al.'s (2013) study with first-year students identified as belonging to a religious minority group, students' understanding that 'you have to drive your career', meant that if they failed to strategise their actions, that they were lacking or irresponsible. This study implied that the graduate attributes approach could produce devalued identities for students who orient towards a graduate identity but have fewer resources with which to actualise it. The diversity of undergraduate students backgrounds was also shown to block orientation towards graduate identity. For example, Allen et al. (2013) also report that students belonging to religious minorities struggled to respond to the different identity demands of the transition into university, maintenance of their established identity, and the future-orientated nature of graduate employment.

Thus, although there is support for identity focused graduate attribute approach, there are several critiques. In particular, that there may be significant differences between students', practitioners' and researchers' understandings of ideal identities related to employment. There are also questions about how a future graduate identity

can be incorporated into the present self, and critics note an underlying neoliberal argument of personal agency and responsibility that potentially locates blame for a lack of success with the individual regardless of their wider resources. These concerns hold particular risk when viewed through a lens of institutional consumerism. For example, institutions may develop 'brand' employability identities for strategic gain through enhanced student recruitment and league table reputation, but in doing so neglect the needs of the individual student and the pedagogic literature base which underpins employability.

What emerges from the identity/graduate attributes research reviewed above is the importance of identity in shaping students' engagement with the four employability capitals described in chapter 2. But, also that there is significant complexity in how a graduate identity might interact with other identities and social locations of a student that can make the graduate attribute approach a destabilising rather than affirmative experience, particularly for the most vulnerable students. In view of critiques of the approach, more research is needed that specifically explores the complexities, implications and variability between students in relation to the development of valued graduate identities. Such research could then inform the development of interventions more likely to produce affirmative graduate identities, whereby students retain the autonomy to direct their learning in ways which are meaningful to them but which are also sympathetic to the differences in cultural and material resources which diverse student populations have.

There are also significant gaps relating to how the processual approach to employability accounts for the underlying mechanisms that enable or reduce students' ability to direct their learning towards the activities that contribute to their self-development and toward a future goal of 'successful' employment. So that, despite a

pedagogic field which is confident about what constitutes good learning, understanding of the underlying capacities that lead to engagement with employability practices is limited, and questions remain about how students may direct their learning through sustained and strategic engagement with the practices and skills linked to careers, such as work experience, academic study and transversal skills.

Engagement with graduate employability activities requires students to recognise the value of these activities, as well to have the time, resources, motivation and volition to 'buy-in' to them. In an attempt to address the gap in knowledge about the processes underlying students' ability to direct their learning, psychological research has focused on perceptions about employability, motivation and personality. Examples of this work are given below.

Arguing that perceptions about employability are a factor in engagement with employability practices, Rothwell, Herbert, and Rothwell (2008) developed an instrument of Self-Perceived Employability based on the premise that commitment to an organisation influences motivation and students' perceptions of their future employability. Results from a sample of business undergraduate students showed significant, moderate relationships between a student's self-perceived employability, their ambition, and their commitment to their university 'brand'. Although these findings suggest that interventions which foster such commitment may be useful to motivating students to engage with graduate employability, the instrument was criticised for an orientation towards higher performing students and an emphasis on constructs such as brand which sit beyond students' control.

Other researchers have focused on the role of motivation in engaging with employability practices. For example, motivation to act was investigated by Clements and Kamau (2017) through a goal-setting and career-identity approach. Acknowledging

the competing demands that undergraduates face, Clements and Kamau (2017) used a model of job-demands-resources to explain why some students are more able to engage with the capitals of employability than others. The responses of 432 undergraduate students demonstrated that those who displayed more mastery behaviours, thus holding proactive beliefs towards learning, were also more likely to engage in skills and network building. Students with a career goal were also more likely to participate in a range of proactive career behaviours. These findings provide evidence for the importance of motivation, but are limited to their focus on the careers guidance employability capital. Such research also only points to where vulnerabilities lie (for example, in not having a clear career goal), rather than providing an underlying psychological mechanism that might explain variation in students' engagement with skills development.

Along with perception and motivation, the third psychological approach has been to focus on personality. Research applying personality theory to employability has examined how the shift towards protean or boundaryless careers has produced an ensuing demand for students to respond to this change. Thus, personalities that are more open to experiences are predicted to be better suited to engaging with initiatives aimed at developing employability capitals. Using an abbreviated Big Five personality inventory with 2250 alumni, Eby, Butts, and Lockwood (2003) showed moderate significant correlations between the personality construct of 'openness to experience' and perceived career success, suggesting that students who are open to new experiences will have a more positive belief system relating to employability.

Other aspects of personality have also been explored in relation to employability. Huang (2014) predicted that the personality construct of hardiness would be influential to perceived employability, through a proxy variable of career decision self-efficacy. Using Rothwell et al. (2008)'s (2008) instrument described above, together with

Bartone's 15-item Dispositional Resilience Scale and Betz, Klein, and Taylor (1996) (1996) Career Decision Self-Efficacy Scale Short-Form, responses were collected from 220 undergraduate students in Taiwan. The results support the author's prediction that students with higher levels of resilience would hold more self-efficacy about their career-related decisions. However, the relationships with self-perceived employability yielded weaker support. Although mixed, these findings are nonetheless important as they suggest that approaches which build student resilience would be useful to processual operationalisations of employability. However, since personality traits are commonly assumed to be stable, and there is a limited literature base with which to guide interventions aimed at promoting personality change (McCrae & Costa, 2008), these findings may be limited in the HE context beyond identifying students who are at risk of non-engagement.

In summary, students' perceptions, commitment to the organisational brand, ambition, mastery motivation, and the presence of proactive personality constructs such as openness to experience and resilience may contribute to the processes which facilitate employability learning. However, there is a scant literature examining these constructs, and they risk producing decontextualised notions of employability. Furthermore, the nature of motivation and personality processes may be circular. For example, students who are open to experience may access more experience, which then mediates their employability. In the light of these limitations, this thesis proposes a different solution for conceptualising the underlying processes of graduate identity and orientation to skills development, in the form of self-regulated learning (SRL).

SRL is a multifaceted concept, underpinned by the cognitive constructs of metacognition, self-efficacy, and epistemological belief and therefore encompasses concepts of employability as a process and identity. Furthermore, there is significant

evidence supporting it as a model for directed learning, suggesting that a fruitful development would be to apply it to the learning of skills related to employability. Below, the case is made in more detail that the concept of SRL represents a fruitful avenue for thinking about the processes involved in developing future orientated identities and engagement with the four employability capitals.

3.2.0 Self-regulated learning

SRL theory focuses on how people orientate their learning action towards goals. SRL is defined as 'not a mental ability or an academic performance skill; rather it is the self-directive process by which learners transform their mental abilities into academic skills' (Zimmerman & Schunk, 2001, p.66). Historically, SRL has been used in the context of academic learning, with evidence that those with higher levels of the construct are better at achieving goals, learn easier, procrastinate less, are more motivated, and show higher levels of academic satisfaction (Clark, 2012; Pintrich, 2000; Schmitz & Wiese, 2006; Schraw et al., 2006; Zimmerman & Campillo, 2003).

While the principles of SRL are used extensively across disciplines (Zimmerman & Schunk, 2001), SRL in the employability context is currently only emerging, and there is a gap in the empirical evidence base. In particular, although elements and principles of SRL are present in existing research and models of employability, these have not been brought together explicitly in published research. For example, the practice-driven USEM employability model published by Knight and Yorke (2004) included metacognition and self-efficacy, both of which are variables of SRL. Similarly, Kavanagh and Drennan's (2008) work, discussed in chapter 2, demonstrated that students considered that their overall capacity to engage in continuous learning was their most important employability skill. Holmes' (2013) critique of the possession approach

in favour of the process approach, which envisages students as lifelong, critical and reflective learners, also implicitly draws on the principles of SRL. Finally, in support of this thesis's argument, Van der Heijde (2014) proposes that self-regulation bridges a range of employability theories, and emphasises the value of its utility for facilitating change in the organisational context.

Although self-regulation and aspects of SRL are present in the employability literature, this aspect of the literature is significantly underdeveloped. There is also an important underrepresentation of learning theory within the construct of, and research into, employability in the HE context. A key and novel aspect of this thesis, therefore, is the argument that bringing the well-developed literature of SRL into the field of employability offers a significant contribution to understanding students' engagement with employability practices and graduate identities, and could inform the development of inclusive and affirmative graduate employability interventions. The argument for including SRL in models and practices of employability is made below.

The theory of SRL emphasises how individuals manage their learning across time and towards goals. Zimmerman (2005) warns that the value of 'managing' learning should not be underestimated, proposing that it is potentially humankind's most significant capability, since it helps people to adapt, survive and flourish, even within the most hostile of environments. Winne and Nesbit (2010) in their review about the psychology of learning achievement outline the tremendous potential that exists to 'fuse' together traditional learning theory (whereby the focus is on learning within discrete timeframes) and towards the 'mapping' of learning across time and towards future goals. Student engagement with employability practices is readily applied to notions of learning and to the complex engagement demanded by employability as part of an expansive and long-term project on the self. Yet, the underlying capacity to

learn is a neglected aspect across models that inform pedagogic approaches to graduate employability (Kavanagh & Drennan, 2008).

SRL is differentiated from the ideology of traditional 'intelligence', where the expression of good learning may be restricted to the ability to uptake and regurgitate information (Swanson, 1990). In illustration of this issue, Zimmerman (2008) points to the example of a student who indicates sound topic knowledge, and yet is unable to engage in the gradual development of a written essay. As such, the student may be able to access the knowledge of a topic verbally, but unable to direct their learning in ways which result in an essay being written. Within an employability context, the SRL framework accounts for the phenomenon of bright, energetic, career-driven students who perplex their tutors when they are unable to engage in sustained activities towards their future employability.

In Schraw et al.'s (2006) leading model of SRL (see Figure 3.1, p.71), learning is predicted to occur when cognitive, metacognitive, and motivational components are in place. Firstly, a learner needs cognitive function in alignment with their development stage, such that individuals who have a learning difference or delay may display a different SRL profile. In this thesis, enrolment on an HE programme is taken to mean that the student is on a typical cognitive trajectory, although this point in of itself opens up avenues for further research, such as with adults with a diagnosis of autism spectrum disorder, who are known to display atypical patterns of executive function (see Happé, Booth, Charlton, & Hughes, 2006).

Having established underlying cognitive function, the person then needs to be knowledgeable about, and be able to implement regulation of the cognitive strategies needed to engage in a particular task. These high-order thinking skills which include planning, monitoring, and evaluating the learning process, are gathered together in the

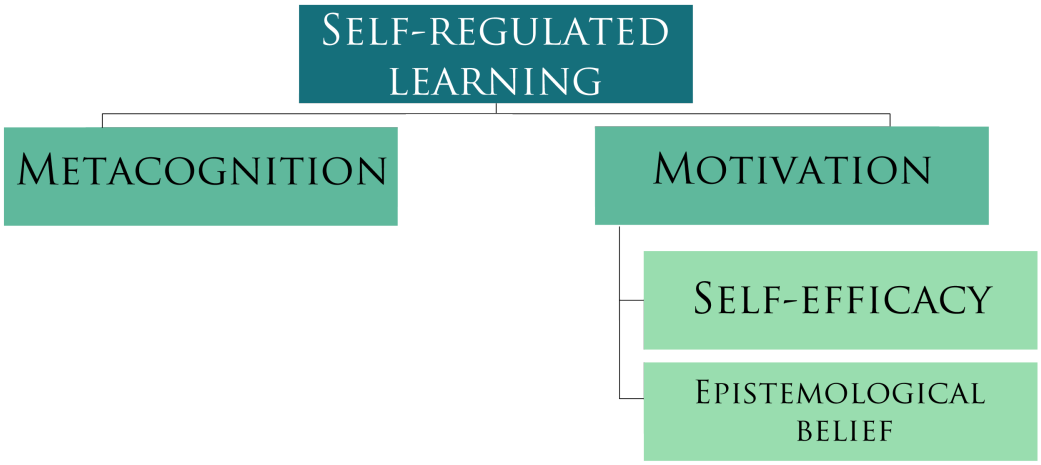


Figure 3.1: *Schraw's (2006) Model of Self-Regulated Learning*

construct of metacognition. The possession of higher order thinking skills alone is not sufficient to predict action. Schraw et al. (2006) proposes that motivation occurs when we believe we can accomplish a task (self-efficacy), and when the demands of completing a task are consistent with our understandings about how learning occurs (epistemological belief). Applied to employability, a student may know that they need to gain work experience in a relevant field, that they need to access careers support, and that they need to manage the workload to ensure that this engagement is not only sustainable, but that it also does not impact on their academic work. But in addition to strategising this action, the student also needs to be motivated and to hold epistemological belief – the belief that they can achieve the action and also to value the knowledge gained from that action. To optimise learning, pedagogic approaches should incorporate dimensions of all three constructs.

The SRL framework is also informed by Bandura's (1986) work on social-cognitive learning theory, since SRL is a psychosocial approach to understanding behaviour, with identity conceptualised as the 'compass' for learning action, and encompassing the underpinning constructs of metacognition, self-efficacy, and epistemological belief.

Thus, learning and identity exist in dynamic relation to one another, and one should not be considered without the other (Boekaerts et al., 2005). Moreover, people are only predicted to act when information from the environment is relevant to their salient identity (Boekaerts et al., 2005; Simon, 2008). For example, linking with graduate attributes, it is argued that a student would be most likely to regulate their action towards the valued capitals of employability when their underlying capacity for SRL makes this action possible, but that they also have access to an identity to guide that action in the direction of graduate employment.

A review of the plethora of interventions to guide students towards employability suggest that they are often based on broad assumptions about learning. Employability requires students to orient their learning towards the four employability capitals, but rarely fully engages with the psychological concept of SRL. There is potential to draw on its rich traditions through empirical research and develop a more rigorously supported understanding of the processes underlying students' engagement with employability. The components of SRL, including metacognition, self-efficacy, and epistemological belief, are described in more detail below in order to establish their applicability to employability.

3.2.1 Metacognition. Metacognition is a well-established construct, used extensively in psychological and educational fields defined as 'thinking about thinking,' (Flavell, 1979, p.906) or 'the monitoring and control of thought' (Martinez, 2006, p.696). The construct refers to a person's capacity to gain knowledge about learning and then systematically monitor and regulate action towards a goal all within a reflective cycle (Brown, 1978; Flavell, 1979; Fox & Riconscente, 2008; Schraw & Moshman, 1995).

This thesis argues that SRL's orientation towards the 'management' of learning can

inform current understandings of students' engagement with graduate employability. The literature base indicates several benefits for students with well-developed metacognition. Students with developed metacognitive status go on to achieve higher academic outcomes (Garner & Alexander, 1989) and exhibit higher academic retention (Sperling, Howard, Staley, & DuBois, 2004). They are more responsive to the opportunities of their learner journey by knowing what cognitive strategies to use and enhanced problem-solving ability (Kleitman & Stankov, 2001; Mitchell et al., 2007; Schunk, 2008). Significantly for this thesis, students identified as having highly developed metacognition are shown to be more efficient at directing complex learning activities through the making, monitoring, and evaluation of plans (Schneider & Pressley, 2013; Schraw & Moshman, 1995; Stanovich, 1990). This thesis therefore predicts that students with developed metacognition will have more capacity to direct their action towards engagement with the valued employability capitals.

There are several characteristics of metacognition which provide reflective points for those who develop employability pedagogy. Adults tend to have more knowledge about their cognition, and maturity of metacognitive status is often not fully achieved until the late twenties, if at all (Alexander, Carr, & Schwanenflugel, 1995; Baird & White, 1996; Schraw & Dennison, 1994). High motivation to act does not influence performance when the metacognitive ability is lacking (Schunk & Zimmerman, 2007), and the capacity to manage behaviour towards a goal is a cognitive step away from knowing that action should be taken (Schraw & Dennison, 1994). This aspect of the construct illuminates problematic aspects of employability, such as the paradox whereby students may need to strategise and monitor their actions towards a complex set of employability practices before they may have the cognitive maturity to engage in that process fully. Thus, self-regulated learning offers an explanation for the continuum

of engagement observed in the applied setting, but also has the potential to inform inclusive employability interventions, beneficial to all students irrespective of their academic performance.

An advantage of using SRL is that metacognition is 'teachable', albeit within a developmental boundary, and therefore offers the potential for employability to be taught and enhanced. Implicit metacognition-informed pedagogies are visible in the HE field through an orientation towards work experience, experiential learning, and reflective practices as valued capitals. Experiential learning is tacit knowledge, meaning the 'knowing how' rather than 'knowing what' (Lubit, 2001), and can be particularly challenging to develop in the academic setting where there may be an absence of 'doing'. However, students show positive metacognitive gains after only a short period of instructive techniques (Hargrove, 2013; Wagner, Dörrenbächer, & Perels, 2014), while students who participated in metacognition-informed tasks to enhance their cognitive understanding of self-control, goal setting, and recording of progress showed easier future learning, enhanced motivation, and higher levels of academic satisfaction (Pintrich, 2000; Schraw et al., 2006; Zimmerman & Campillo, 2003). Murakami, Murray, Sims, and Chedzey (2009) interviewed thirty-two students in a qualitative study and demonstrated the successful development of employability through students' participation in work placements. Many current interventions are limited to the provision of advice and information, such as advising students to participate in work experience. However, students may be several cognitive steps away from having the ability to achieve an optimum outcome. Should a relationship between SRL and employability be evidenced, there is the potential for curriculum development, pastoral support, and study skills to enhance employability if the teaching is informed by the fundamentals of metacognition.

The capacity to engage with the metacognitive cycle is relevant to employability in further ways. Metacognitive approaches state that people learn from experience through reflection (Dewey, 1933; Schön, 1991). There is evidence to support the proposition that reflection is a useful activity towards employability through qualitative support for the value of reflection on employability (Eden, 2014; Greenbank, 2014; Thompson et al., 2013), and also for the benefits in building resilience towards the demands of 'future thinking' (Smith, Clegg, Lawrence, & Todd, 2007). This stance is visible in pedagogic practices, and HE adopts various means of facilitating reflection, using laboratory handbooks, for example, and through professional development plans (Moon, 2004; Robertson et al., 2012; Simatele, 2015). However, metacognitive theory also proposes that this process is influenced by our underlying thoughts about reflection (Tanner, 2012), indicating that employability approaches which only inform students about the practices without paying attention to underlying metacognitive theory would be insufficient.

Contemporary understandings of employability in HE place a demand on students to direct their learning strategically towards an increasingly diverse range of endorsed practices. However, evidence of an explicit link between metacognition and employability is currently limited to measures which are assumed to predict employability. Lai (2011a), for example, showed that metacognition positively impacts academic performance, motivation, and epistemological understanding, which then, in turn, is predicted to impact on workplace outcomes. But there are no studies that directly investigate whether SRL predicts engagement with employability. Therefore while current research suggests value in this direction, there lacks the empirical evidence base with which to drive this thinking forward in the HE sector.

3.2.2 Motivation. A further construct of SRL that is implicitly recognised as a component of student engagement in graduate employability is motivation. In addition to metacognition, Schraw's (2006) Model of Self-Regulated Learning encompasses goal-orientated action through the dimension of motivation, which made up of the constructs of self-efficacy and epistemological belief. As discussed above, motivation has been a specific focus for some work on employability, pointing to the importance of goal orientation and self-efficacy. The advantage of an SRL approach to motivation is that it offers a coherent model for the role of motivation in learning. For example, using SRL model, a student with higher metacognitive ability, but without motivation may not be active towards a goal that contributes to their employability. In contrast, an individual with motivation towards employability, but without the metacognitive capacity, will be less able to direct their efforts effectively towards the desired outcome. To further explicate how motivation is conceptualised in SRL, self-efficacy and epistemological belief are outlined below.

Self-efficacy. As the second component of SRL, self-efficacy is defined as the beliefs one holds about one's ability to act, 'beliefs in one's capabilities to mobilise the motivation, cognitive resources, and courses of action needed to meet given situational demands' (Wood & Bandura, 1989, p.408). A student may have the cognitive capacity to engage in complex action, yet lack the belief that they can successfully perform. A lack of self-efficacy is known to inhibit engagement in learning. In this context, therefore, for students to act towards employability capitals, they would need belief systems about their ability to support that action.

Self-efficacy is conceptualised as a buffer against experiences that challenge our sense of self (Bandura, 1977; Chen et al., 2001). Similar constructs such as self-

confidence, self-esteem, or emotional regulation, are differentiated from self-efficacy by a targeted focus on performance beliefs (Bandura, 1977; Forester, Kahn, & Hesson-McInnis, 2004; Nelis et al., 2011). For example, a student with high self-confidence is expected to maintain this confidence in performance across tasks and contexts. However, self-efficacy is task or domain related. Individuals may hold high levels of belief in their ability to perform academically, and yet have low levels of self-efficacy relating to the work-related tasks of employability. A further differentiation is that self-esteem is affective while self-efficacy is motivational (Brockner, 1988). Therefore, a student with high self-esteem may feel positive about themselves, while a student with self-efficacy is motivated to act towards employability because of their belief that they can perform a task well.

There is an established literature demonstrating that self-efficacy positively influences a range of educational activities including academic engagement, effort, persistence, conscientiousness, goal orientation, and overall achievement in HE (Bandura, 1977; Chen et al., 2001; Schunk & Zimmerman, 2007). In the occupational domain, several work-related outcomes are also shown to correlate positively with self-efficacy, including engagement with social practices and emotional intelligence (Fan et al., 2013; Potgieter, 2013), proactive personality characteristics (Schyns & von Collani, 2002), job satisfaction (Rigotti, Schyns, & Mohr, 2008), and career aspirations (Nauta, Vianen, Heijden, Dam, & Willemsen, 2009). These findings point towards the importance of fostering self-efficacy with the goal of enhancing learning.

Mastery of skill or tasks through successful performance is known to increase self-efficacy, while failure reduces it (Hsieh, Sullivan, & Guerra, 2007). Engaging in learning activities increases arousal (anxiety), which can be alleviated by positive feedback and constructive appraisals, but also through the observation of others,

especially when they are of those of a similar ability. There are also specific considerations for people or groups with lower self-efficacy, who are more likely to make personal attributions (blame themselves), while those with higher self-efficacy blame external forces. For example, women typically express lower levels of self-efficacy (Etzkowitz, Kemelgor, & Uzzi, 2000; Hackett & Betz, 1981; Hackett, Betz, O'Halloran, & Romac, 1990). As with metacognition, a benefit of evidencing a relationship between self-efficacy and employability would be the potential for developing evidence-based pedagogic interventions.

Self-efficacy is often included as a dimension of the employability construct (Tate et al., 2014; Turner, 2014). It is intuitive that if a student believes that they can achieve their employability goals, then they will then be more likely to engage and ultimately be successful. The demands of graduate employability may pose a particular challenge to self-efficacy, however, since the opportunity to engage in experiences that foster self-efficacy may be limited within the academic context, lying outside of the remit or control of the institution. However, there is scant empirical evidence directly investigating the relationship between employability and self-efficacy (Dacre Pool & Sewell, 2007), with only a handful of researchers having explored this issue. Gbadamosi, Evans, Richardson, and Ridolfo (2015) showed that self-efficacy is significantly related to student career aspirations, while Dacre Pool and Qualter (2013) demonstrated that emotional self-efficacy is a predictor of graduate employment in working adults. Hazenberg, Seddon, and Denny (2015)'s (2015) evaluation of a self-efficacy intervention with unemployed graduates showed that exposure to mastery experiences facilitated behaviour change and also increased self-efficacy about future employment. While self-efficacy impacts academic performance and is easily applicable to employability, as with metacognition, this approach would

benefit from further research to provide an empirical basis for incorporating self-efficacy into employability training and practice in HE.

Epistemological Belief. In Schraw, et al.'s (2006) model of SRL, motivation is operationalised by partnering epistemological belief with self-efficacy. Epistemological belief is defined as 'beliefs about knowing and knowledge' (Kuhn, 2000, p.309). For a person to be motivated to act, their beliefs about the generation of knowledge (or learning) must align with the proposed action. Key theorist Schommer (1990) argued that there are five independent dimensions of people's beliefs about knowledge: quick learning; innate ability; simple knowledge; certain knowledge, and omniscient authority. Schommer's work suggests that students with more developed epistemological belief status are more likely to think that learning takes time, that people are not born with the innate ability to achieve, that the easiest way is not necessarily the best, that there are no absolute answers to problems, and finally, that authority is not always right. Epistemological beliefs, therefore, encompass aspects of learning that have implications for academic and experiential learning.

There is a body of literature which has evidenced a link between epistemological belief and learning (Hofer & Pintrich, 1997). In general, there is evidence that people differ considerably about beliefs about knowledge, and that these belief systems shape orientation towards learning (Roth & Tobin, 2001; Schraw & Olafson, 2002; Tsai, 2002). In particular, those shown to have high epistemological belief status are also effective problem solvers (Neber & Schommer-Aikins, 2002), and critical thinkers (Kardash & Scholes, 1996; Miri, David, & Uri, 2007). These qualities raise some points for reflection for employability practitioners and pedagogy. As with metacognition, the construct incorporates a developmental continuum, from a proposed naive to a

sophisticated understanding of knowledge and learning (King & Kitchener, 1994). As such, the average undergraduate student would be in developmental transition rather than at peak performance during their time at university. A reasonable question may be whether the demands of employability are in alignment with cognitive capacity at the developmental stage of the typical undergraduate student. Secondly, should a link between epistemological belief and employability be evidenced, this would indicate common ground between academic scholarship on learning and learning towards employment. Such a link would inform literature relating to motivational drives towards engagement with employability where currently there is a significant gap, and also potentially narrow the perceived divide between academic learning and learning towards employment.

In their discussion of the contribution of motivation to employability, (Yorke, 2004, p.26) asked whether 'a piece of the student learning jigsaw is missing', a gap that this literature review also identifies, reflecting the infancy of this underexplored pedagogic territory. The literature review found no empirical evidence which evaluated the relationship between epistemological belief and graduate employability. Malar and Choe (2010) published a conference preceding which suggested that employability develops through interventions which facilitate epistemological growth, while Steur, Jansen, and Hofman (2012) also linked the constructs, arguing for a distinction to be drawn between the concepts of graduateness and employability. For Steur et al. (2012) 'graduateness' refers to transformational epistemological growth which incorporates reflective thinking, scholarship, moral citizenship, and lifelong learning. In contrast, the conceptualised 'employability' as an 'empty' or decontextualised disembodied collection of skills, an argument echoed in the concerns of other the critical writers, about employability being 'hollowed out' (McQuaid & Lindsay, 2005, p.205) in the

contemporary context. While such work on epistemological belief outlines important first steps, there is clearly potential for future development, particularly if done through a wider lens that combines Holmes' possession, position, and process with SRL. To this end, below is a review of available models of employability that could be used to guide this work.

3.3.0 Modelling employability

Employability is difficult to map, multidimensional and complex, with its presentation influenced by the priorities, context, and viewpoint of the contributing researchers. So far this thesis has made the argument for the operationalisation of employability to include practices that lead to employability capitals and graduate identity, but also self-regulated learning as the underlying cognitive process which drives learning towards the capitals guided by the student's identity. Having identified what is needed in a model to help develop the process approach to student employability engagement, the following section evaluates current models in popular use. This section concludes with the proposal that the model that best maps onto the arguments outlined above is Fugate, Kinicki, and Ashforth (2004) Psycho-Social Model of Employability, which encompasses dimensions of personal adaptability, career identity, and human and social capital.

Guided by the broader literature review, eight models of employability were shown to be in popular use in HE, see Appendix Table A.2 (p.368). This information is supplemented by Appendix Table A.3 (p.369) which lists employability definitions used in the field. Together, the nine models contribute forty-four diverse dimensions of employability, such as skills, efficacy, career anchors, corporate sense. Several of the models also account for contextual aspects of employability which either facilitate

or challenge engagement. One model from Forrier and Sels (2003) is not reviewed below, since it neglects employability at the individual level and focuses on external forces alone, through dimensions of shock events and labour market position. The review of models therefore reflects similar complexity to the previous literature review on empirical employability research, since models have been developed for student, pedagogic practitioner, and academic researcher use. There are also differences in how the models have been tested whether through observation in the applied setting, by drawing on existing empirical evidence, through empirical investigation to test a proposed model, or a mixture of the three. This section will evaluate models of employability by making links to the needs identified in the literature review.

The earliest model of employability is Hillage and Pollard's (1998) Four-Factor Model which maps employability assets (knowledge, skills, and attitudes), job search and securing skills, and personal circumstances. This model orients to supporting students in the gaining and maintaining of employment. However, although this early model is a cornerstone contribution to the field and remains in use, it pays scant attention to the underlying psychological processes which facilitate the acquisition of employability assets.

Subsequent models have sought to address the gap relating to underpinning psychological processes. Knight and Yorke's (2002) USEM framework is possibly the most recognisable employability model, especially in the careers guidance domain. The model includes four domains: understanding, skills, self-efficacy, and metacognition which map employability at the individual level and support the value of learning. A core argument of this thesis is that SRL underpins student engagement with employability capitals. Therefore, in a context of models and practice characterised by limited attention to the processes of learning, Knight and Yorke's (2002) USEM model

comes closest through the inclusion of self-efficacy and metacognition. However, the model is also criticised for lack of emphasis on external influences (McCash, 2006), and lack of attention to how the dimensions may cross-influence each other (Hazenberg et al., 2015). Therefore, while the model is useful in the practical setting, it is less informative in guiding empirical investigation.

Dacre Pool and Sewell (2007) built on the USEM approach in their development of the CareerEdge model in response a criticism of available models being 'too elaborate to be practically usable or too simple to do justice' (p.1). The CareerEdge model proposes that engagement with career development learning, experience, degree knowledge, skills, and emotional intelligence form the basis of a reflective process which then results in employability. Dacre Pool, Qualter, and Sewell (2014) partially tested the factor structure using items based on academic performance, skills, and emotional intelligence. However, the authors do not entirely escape the trap of over complexity, as their model includes a four-level hierarchical structure, whose inclusion of three major interrelated psychological constructs of self-efficacy, self-esteem, and self-confidence contributes to a rather unwieldy measurement tool.

Informed by the graduate attributes movement, Bridgstock (2009), in her Conceptual Model of Graduate Attributes, drew upon a plethora of valued attributes within the dimensions of self-management, career building skills, discipline-specific skills, and generic skills. However, while Bridgstock included a final fifth dimension of 'underpinning traits and dispositions', they did not develop the conceptualisation of this dimension beyond drawing on evidence that links personality traits with academic performance. Thus, while the model reflects the shift from a possessional approach to a process, it does not elaborate on the underpinning psychological concepts that enable students to engage in the career-building process.

Two further models draw on literature from the workplace. Van Dam (2004) proposes a Conceptual Model of Employability Orientation based on an individual's attitude towards developing their employability for the benefit of their organisation. This model draws upon evidence from the field of occupational psychology to map the personality characteristics of openness and initiative, alongside that of tenure (importance of job stability), as contributors to employability. It also has the dimension of 'career anchors', aspirational goals that operate as a compass for action, which mediates across the psychosocial dimensions. The alignment of this model with personality theory facilitates measurement, but the workplace orientation of the model is a challenge to use with undergraduate students without re-interpretation of the underpinning theory.

Informed by Van Dam (2004) and Fugate et al. (2004), Heijde and Van Der Heijden (2006) developed a Competency-Based Approach to Employability model specifically for measurement of employability. In this model, an established construct of occupational expertise is understood to operate as human capital to the workplace. Through modelling analysis with workplace employees and their supervisors, five dimensions of employability were identified: anticipation, optimisation, personal flexibility, corporate sense, and balance. However, while the model is drawn upon by literature in the HE field, it was developed and tested in the workplace and so lacks some of the contextual requirements for an undergraduate population.

The models discussed thus far are limited in their capacity to map SRL and the associated capitals of employability in the context of HE. While there are many models in practical use, few are based on empirical evidence, and most lack the specificity to facilitate measurement. In the absence of a model which fits the argument of the thesis in its entirety, the closest model was considered to be Fugate et al.'s (2004) Psycho-

Social Model of Employability. Below the model is outlined and a case is made for how it both maps onto, and can be developed with reference to the above literature review, with particular reference to SRL, the graduate attributes process approach, and the Bourdieu informed possession and position approach.

3.3.1 Fugate's Psycho-Social Model. In light of Holmes' (2013) possession, position, and process approach, a model of employability should include reference to socially informed capitals and graduate identity, and also encompass self-regulated learning as the underlying cognitive process which drives learning towards the capitals, guided by student identity. Fugate et al.'s (2004) Psycho-Social Model of Employability goes furthest towards meeting this demand and mapping the complexity of employability apparent in the literature review.

Using Fugate et al.'s (2004) Psycho-Social Model of Employability, student preparation for the workplace is defined below as the ability to balance personal factors with multiple social systems in pursuit of enhancing their interactions with the workplace:

> 'Employability is a psycho-social construct that embodies individual characteristics that foster adaptive cognition, behaviour, and affect, and enhance the individual work interface' (Fugate et al., 2004, p.15)

To support this action, the model has three dimensions, of Personal Adaptability, Career Identity, and Social and Human Capital, illustrated by Figure 3.2 (p.86). These dimensions are proposed to operate in synergy to enhance, or undermine, a student's employability. Below, each dimension is outlined alongside suggestions about how this thinking might be developed in alignment with the thesis argument.

Fugate et al. (2004) included a dimension of human and social capital to place the

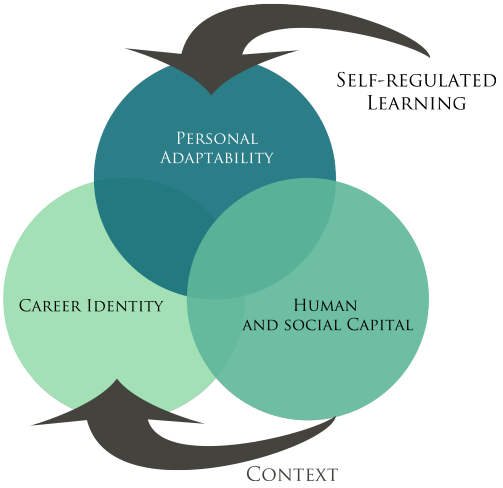


Figure 3.2: *Fugate et al.(2004) Psycho-social Model of Employability*

individual in context, via a reference to the access to, or accumulation of, culturally valued skills, experiences, and social networks. This dimension aligns with the ideas of possessional and positional employability described in chapter 2, with human and social capital acting as both evidence of, and facilitators for, employability (Holmes, 2013).

Fugate et al.'s model proposes that human and social capital, with an appreciation of the associated value, is melded by the career identity creating the second dimension of the psycho-social model, that of, career identity. This dimension of career identity aligns with the fluidity and flux of employability described in chapter 2 and with Holmes' (2013) process approach to employability that focuses on graduate identity development. In the Fugate model, the authors argue that career identity includes a complex mix of goals, hopes and fears, values, beliefs, and norms. They suggest that people select and engage with activities which are salient to their identity. As such, career identities are theorised to provide the 'compass' for the cognitive action which responds to the dimension of human and social capital. However, as with the graduate attributes approach, there is significant potential for research to develop further

understanding of how identity mediates engagement with employability practices and capitals, particularly given the complexities regarding identity and employability outlined in previous sections.

The third dimension in the Fugate model is personal adaptability, which includes five constructs: optimism; propensity to learn; openness; internal locus of control, and generalised self-efficacy. These constructs are theorised to operate cognitively and affectively, facilitating the individual to respond to change and opportunity. By also drawing upon the influence of personality outlined earlier, this dimension is associated with work-related performance (Crant, 2000) and work-related success (Pulakos, Arad, Donovan, & Plamondon, 2000). However, while the model proposes a foundation of propensity to learn within a feedback cycle, there is limited attention paid to this as a measurable variable. Addressing this problem, the thesis makes the novel argument that an SRL approach can subsume and inform the dimension of personal adaptability, through the prediction that metacognition, self-efficacy, and epistemological belief provide the underlying cognitive ability and motivation for the valued practices of employability. This argument, along with the above-identified issues around the need for more in-depth analysis to understand more about the student understandings of employability capital, and the additional need to understand any mediating effects of identity on engagement with employability, led to the research questions of the thesis, which were:

- Research question 1: Can SRL predict students' engagement with practices associated with employability capitals?
- Research question 2: How do first-year students understand the different employability capitals?

- Research question 3: How do final-year students negotiate issues of identity around employability?

3.4.0 Summary

This chapter outlined the process approach to employability, which sought to address some of the limitations of the possession and position approaches described in chapter 2. However, as this chapter showed, the process approach also had some problematic aspects. It was suggested that these issues might be addressed with further research on identity and by addressing the absence of theories of learning in the employability literature. Building on the process approach, the chapter sought to identify the psychological constructs which facilitate graduate employability, reviewing a limited literature which included personality and motivation, before making a case that self-regulated learning might be used instead to understand better the processes that underpin and predict employability.

The chapter offered support for proposing SRL because it provides a means to think about engagement with employability as mediated through learning, and offers a strong framework for conceptualising this learning. Schraw et al.'s (2006) model of self-regulated learning was identified as particularly viable since it proposes that a student who is proficient at regulating their cognitive strategies (metacognition), believes they can achieve their goal (self-efficacy), and holds knowledge beliefs which support growth (epistemological belief), will be more likely to engage in employability capitals. However, SRL capacity alone is not sufficient to predict action as identity is understood as directing action when information from the environment is considered relevant (Baumeister et al., 1994; Boekaerts et al., 2005). SRL thus ties in learning with identity, a position supported by the employability literature reviewed.

The chapter also argued that SRL might be used to develop current models of employability. Through a review of the available models, Fugate et al.'s (2004) Psycho-Social Model of Employability was identified as the most appropriate model in terms of its dimensions being supported by the rigorous literature review reported in chapters 2 and 3. However, it was noted that while the dimensions of human and social capital and career identity in Fugate's model clearly mapped onto the possession, position and process perspectives of employability and thus have strong empirical support, the dimension of personal adaptability was underdeveloped, and a case was made that the dimension of personal adaptability could be replaced with SRL for a more effective model.

Chapters 2 and 3 thus led to the research questions stated above, which focused on the need to test the utility of SRL in predicting students' engagement with employability practices, as well as develop knowledge on the way identity mediates engagement with employability practices and capitals.

The following chapter outlines the mixed methods design that was used to address these research questions. It argues that using mixed methods allowed for the testing of predictions through a psychometric approach, while qualitative analysis facilitated an in-depth understanding of the complexities of students' lived experience and sense-making around identity and employability. The ontological and epistemological underpinnings for this mixed-methods design, as well as ethical considerations, are also discussed.

Chapter 4

Methodological Framework

4.1.0 Introduction

Guided by Holmes' (2013) notions of employability as possession, position, and process, this thesis sought to empirically explore and better understand the nature of graduate employability, and thus contribute to a rigorous evidence base from which universities can develop employability interventions and help students to achieve graduate-level careers. As argued in previous chapters, without an appropriately evidence-based model of employability, implementation of employability training in HE is likely to be theoretically underdeveloped and empirically unsupported. This context forms the basis of the thesis, and earlier chapters sought to identify empirically supported evidence as well as the deficits and criticisms of the field, concluding that self-regulated learning (SRL) might offer an important contribution to understanding some of the psychological mechanisms involved in students' engagement with employability.

To test the utility of SRL in the employability field, a design was employed that included three stand-alone, but complementary, studies (see Table 4.1 on the next page). Together, these studies provided quantitative and qualitative insights into undergraduate engagement with employability by exploring the utility of the application of SRL and associated constructs of metacognition, self-efficacy, epistemological belief, and identity. The three elements of this mixed methods thesis each provided unique insights,

Table 4.1: *Summary of the Thesis 3-Study Design*

Study	Design	Participants	Analysis
1	Quantitative	294 undergraduate students	Path Analysis (and supportive statistics)
2	Qualitative	20 first-year undergraduate students	Template Analysis on interviews and focus groups
3	Qualitative	3 final-year undergraduate students	IPA on a focus group

Note:IPA=Interpretative Phenomenological Analysis

but were also brought together to capture the complexity of the multifaceted concept of employability in order to provide an innovative and rigorous approach to researching the topic. Below the methodology is discussed in detail, starting by introducing the rationale for using a mixed-methods design, which is followed by a discussion of critical realism as a theoretical framework that provides a coherent epistemological and ontological underpinning across the three studies, the analytic rationale is then explained for each of the studies, and consideration of ethics concludes the chapter.

4.2.0 Mixed methods design

Mixed methods research methodology rejects the notion that qualitative and quantitative research methods are discrete or oppositional. Instead, it forms a 'third research wave' (Johnson & Onwuegbuzie, 2004, p.17), where the qualities of both approaches are valued and used pragmatically and creatively to enrich knowledge about a phenomenon. In alignment with critical realism, mixed-methods research does not seek to achieve

a single truth. Instead, triangulation (when understood as a method for looking at a phenomenon from different perspectives) informs a more comprehensive or deeper interpretation of data or a phenomenon through the pragmatic 'fitting together' of techniques (see Bryman, 2015; Creswell, 2013; Johnson & Onwuegbuzie, 2004; Mackenzie & Knipe, 2006; Tashakkori & Teddlie, 2010; Yardley, 2008). Bryman (2006) emphasised the importance of being explicit about the grounds on which mixed methods research has taken place, and this argument forms the basis for this chapter.

Several guidelines are available for the design of mixed method studies, including considerations of equal or dominant status and the time ordering of phases as shown in Table 4.2 on (p.93). Oppenheim (2000) argued that there is not a 'best' method, but that good designs should respond to the research questions in informative and appropriate ways. In this thesis, a process approach to employability engagement was tested using a mixed methods sequential design. In light of the arguments made of the importance of SRL to graduate employability, Study 1 used quantitative psychometric measurements and path analysis to explore any predictive relationships relating to the employability capitals (of academic study, work experience, careers guidance and transversal skills) and the complex psychosocial construct of SRL. Study 2 then used template analysis to explore under-researched student understandings of the employability capitals. The design of Study 2 addressed a gap in the literature base in terms of accessing student sense-making; enabled further interpretation of the Study 1 findings (for example, reasons for why predicted relationships were found or not); and provided a foundation for Study 3, when the findings of Studies 1 and 2 pointed to the need to explore issues of identity further. Building on Study 2, Study 3 employed an idiographic approach to explore identity as a mediator between the underlying process of SRL and the employability capitals. By using a novel group interpretative phenomenological

Table 4.2: *Mixed-Method Design Decision Matrix*

Timing	Weighting	Mixing	Theorizing
No sequence: Concurrent	Equal	Integrating	Explicit
Sequential: Qualitative first	Qualitative	Connecting	Implicit
Sequential: Quantitative first	Quantitative	Embedding	Implicit

Note:Adapted from Creswell(2013)

analysis (IPA) on focus-group data from third-year students, this design was used to explore subjective experience of employability identities.

The qualitative studies thus built on Study 1 to address the complexity of employability, facilitating interpretation of the findings of Study 1, as well as addressing the paucity of student voice in the literature. As will be argued in this chapter, the individual analysis of each study and their fitting together enabled a novel, multifaceted and rigorous investigation of the processes underlying learning for graduate employment in HE within a complex wider social context. Part of the rigour of this thesis included the philosophical coherence between the studies in which the mixed methods design was held together conceptually by an overarching critical realist epistemology, discussed in the following section.

4.3.0 Critical Realism

The complexity of employability provoked both the decision to employ mixed methods and philosophical questions that directed the selection of the research paradigm. Research paradigms require that the methods deployed to generate knowledge about reality and experience (ontology) align with the beliefs about what constitutes

knowledge (epistemology) (Creswell, 2013; Delanty & Strydom, 2003). For example, if we measure employability engagement how do we know what constitutes as this action when it is observed? A question that is particularly pertinent given the 'fuzziness' of employability as a concept.

Socially influenced phenomenon such as employability creates a problem for methodology, whereby polar conceptualisations are often used to demarcate research paradigms and direct research approach. At one end of the continuum is positivism, which assumes truth to be objective and unbiased knowledge, lending itself more readily to quantitative methods. Occupying the opposite end of the continuum, constructionism embraces the concept of multiple realities, often through the analysis of rich qualitative data, in order to acknowledge and explore meaning, experience and social practices (Willig & Stainton-Rogers, 2007). Thus, the complex social terrain within which employability sits demands a creative and flexible paradigm for research that is ambitious enough to attempt to explore students' engagement with employability comprehensively.

Critical realism offers a solution to this challenge by encompassing positivism, phenomenology and constructionism, contending that all methods (and their underpinning philosophies of knowledge) can be useful for understanding different aspects of a phenomenon (Kwiatkowski & Winter, 2006; Sims-Schouten, Riley, & Willig, 2007). Consistent with positivism, at the heart of critical realism is support for an external material reality operating independently of human consciousness. However, critical realist philosophy asserts that it is only under optimum conditions, rarely achieved, that material reality is fully measured through observation. By doing so, critical realism draws from the constructionist viewpoint and acknowledges that the research context is fundamental to the knowledge generated (Collier, 1994; Delanty &

Strydom, 2003; Maxwell, 2012).

Bhaskar (2013), a key critical realist philosopher, outlines how complex social phenomenon can be studied, making a conceptual distinction between the real and studies of the real. In this philosophy the label of 'intransitive objects of knowledge' is used to refer to objects which exist independently from the activities of people. Bhaskar states that while real objects saturate our world, 'true' knowledge is in very short supply and limited to aspects of physics (for example, the gravity of mercury). But in a context of paucity of knowledge about certain objects, people develop terms of reference to talk about and understand the world, they become 'transitive objects of knowledge'. This process is called 'retroduction', where researchers create 'models of mechanism' which attempt to theorise the real. Studies of these transitive objects then produce the models, paradigms and facts that we commonly accept as reality.

Critical realism offers a fruitful paradigm within which to explore employability, since it allows for measurement and generalisation while also acknowledging the importance of social and political contexts in our understanding of phenomena. Drawing parallels with Bourdieu's work on capitals, Bhasker conceptualises that the models formed to represent behaviours sit within 'open systems', multiple systems which influence multiple models. Models do not determine that something will happen, but rather propose that under enabling conditions with no interference, one object will influence another. Therefore, the 'real' intransitive object can constrain or facilitate our capacity to act, while the model of mechanism seeks to explain the conditions of that acting. Thus, reality has a form and structure which is conducive to quantitative measurement, but that structure is emergent, layered, and perpetually unfolding within a social context (Collier, 1994). Such an approach facilitates creative approaches to methodology but also navigates problematic characteristics of a phenomenon which can

constrain investigation. For example, the social factors which influence employability make the construct challenging to measure from a positivist stance, yet without measurement the research base is impoverished.

Critical realism was thus chosen as the theoretical framework for the thesis because it allowed the thesis to address its research questions through a critical and rigorous framework, while also remaining respectful to the evolution of the construct and perspectives and experiences of the stakeholders. The flexibility to synthesize approaches afforded by critical realism was also seen as an advantage since it provided opportunities to think about problems in new ways. A critical realist framework is also consistent with a mixed methods design, since it is both conducive to quantitative measurement and to qualitative research that adds in-depth information on meaning-making and context. Having provided the overarching critical realist standpoint of the thesis, the next section focuses on the specifics, outlining the rationale for each of the studies. In so doing, it highlights each study's unique contributions but also how they were brought together using a mixed-method design to understand a process approach to employability better.

4.4.0 Study 1

Study 1 investigated the novel application of SRL to employability using a psychometric approach. Statistical analysis mapped the relationship between SRL's elements, using path analysis to test the hypothesis that SRL can predict students' engagement with practices associated with employability capitals. Psychometrics is a methodological approach which collects data through the use of tools, referred to in the literature as instruments, including measures, scales, questionnaires, or surveys (Furr & Bacharach, 2013; Kline, 2000; Oppenheim, 2000). The approach allows for the transformation

of the lived experience (for example, emotions, beliefs, and intentions) into numerical form (Winne & Perry, 2000). The rationale to measure SRL using the psychometric approach came from a review of the literature where psychometric measurements were shown to capture an individual's SRL in ways which endure across time and which can be used to predict future behaviour (Zimmerman, 2008).

Study 1 sought a means of capturing a student's SRL status. Several instruments were reviewed for use, but they were identified to be too academic-learning focused. For example, The Motivated Strategy for Learning Questionnaire (MSLQ) from Pintrich, Smith, García, and McKeachie (1993) asks questions like 'I expect to do very well in this class' alongside dimensions of test anxiety. Furthermore, the Learning and Study Strategies Inventory (LASSI) from Weinstein, Palmer, and Schulte (2016) asks how students use academic resources and their anxiety about performance in the academic setting. Therefore, while these instruments are well used in the educational field, in order to respond to Research Question 1, the researcher sought instruments that more readily related to the employability context.

Informed by Schraw's (2006) model of SRL, four pre-validated instruments were identified that combined could represent SRL. These instruments were the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994), the General Self-Efficacy Scale (NGSE) (Chen et al., 2001), the Workplace Self-Efficacy Scale (WSSE) (Fan et al., 2013), and the Epistemological Beliefs Inventory (EBI) (Schraw et al., 2002). More detailed information about the rationale for each of these instruments is provided in chapter 5, but in brief, each were selected due to their general applicability inside and outside of the academic environment and evidence of robust validity.

Study 1 also needed a means to measure employability engagement. The dominant understanding of employability in HE is student engagement with a collection of

endorsed practices that build towards a portfolio of skills and achievements (Bennett, Eagle, Mousley, & Ali-Choudhury, 2008; Branine, 2008). However, there is a recognised paucity of instruments to measure employability engagement, with a tendency to rely on academic outcomes or the acquisition of employment. For example, Rothwell and Arnold's (2007) instrument of self-perceived employability includes factors of employability, ambition and university commitment. But the instrument was unsuitable since it did not include many of the practices associated with employability identified in chapter 2, containing instead items relating to university brand such as 'I talk up this university to my friends as a great university to be at' or 'A lot more people apply for my degree than there are places available'. As such, an alternative approach to measuring employability engagement was sought that would more closely align with the conclusions drawn in chapter 2.

Chapter 2 drew together a disparate literature to suggest that 'good' employability engagement at the graduate level includes academic performance, work experience, careers guidance, and transversal skills. Thus, to reflect student engagement with employability study 1 used a series of questions about engagement with these practices, which, drawing on Bourdieu, were conceptualised as the 'employability capitals'. The questions measuring students' engagement with the four employability capitals were identified /developed on the basis that each of these capitals sit within a hierarchy, for example, a 2:1 is valued more highly than a 2:2, and graduate experience more than non-graduate experience (see chapter 5 for more detailed information about these questions). Producing these questions rather than using the existing questionnaires described above thus allowed Study 1 to investigate the novel application of SRL to empirically supported employability practices using a psychometric approach.

Building on Study 1, and the notion of students as important employability

stakeholders, engagement was further mapped using two qualitative studies. The aim of the qualitative studies was to collect data in the form of 'rich' talk to better understand student employability engagement from the students' perspective. A focus on 'richness' is useful for investigating complex topics, such as employability, whereby the participants are considered the experts about their own lived experience (Brocki & Wearden, 2006). The design of Study 2 and Study 3 included the twin aims of eliciting in-depth data on students' meaning making, while also offering some breadth of the student experience. To that end, two cohorts of students were recruited who were differently positioned in relation to their developmental position vis a vis employability (first-year students on the beginning of their university employability journey, and final year students about to leave university and seek graduate level work). This provided some breadth to the narratives as well as richness through the in-depth talk of the interview and focus group data, within the context of the qualitative studies being limited in scale in contrast to the quantitative study. Study 2 and 3 are outlined below.

4.5.0 Study 2

Study 1 pointed to the need to explore student understandings about employability capital further. Several qualitative techniques would be suitable for this task. For example, content analysis codes and then counts qualitative data yielding a numerical representation of the topic (Hsieh & Shannon, 2005). But while content analysis yields trends and patterns in data, it does not show the nuanced expressions demanded by the research question and is completely top down. Instead, a method was sought that allowed both top-down and bottom-up analysis, facilitating a structured look at the four identified employment capitals while also being driven by the students' sense making, thus allowing for the flexibility to discover how students understand and experience the

capitals in their own way. Template analysis responds to such a call, offering a dual-focus top down and bottom up approach, and for this reason was employed in Study 2 to both investigate unexplained patterns in Study 1 and to provide novel insights into students' lived experience and sense-making.

Further richness was enabled by the choice to use two different data collection methods, of individual interviews and focus groups. Interviews offer access to individual sense making, while focus groups create collectively produced narratives (Niland, Lyons, Goodwin, & Hutton, 2014). Using both techniques allowed for personal and shared ideas to be explored.

The template analysis was performed on data from twenty students at the beginning of their HE journey when graduate employment may not yet be salient, but where the demands of engagement with employability capitals are nonetheless considered important by HE institutions. The sample size was guided by King (1998), in brief, qualitative sample sizes are comparatively smaller than quantitative because frequency or prevalence may not be indicative of worth, so more data does not automatically result in higher quality results (Ritchie, Lewis, Nicholls, & Ormston, 2013). Sample diversity is also a consideration because qualitative designs typically value 'aspects in common' or homogeneity (Krueger & Casey, 2000). This informed the decision to focus on the disciplines of psychology and geography in Study 2 to allow for a more homogeneous sample because the disciplines of psychology and geography are shown to have similar employability profiles (Rees et al., 2006).

The employability literature suggested that students find employability challenging to talk about, whereby their lack of experience in the graduate workplace may be a barrier to thinking about their employability in the present (Holmes, 2015). Concerns about articulation provided the rationale for using a card-sort activity to structure the

interviews and focus groups across both qualitative studies. Card sorts are a popular technique in the careers literature base for promoting elaboration on a topic while encouraging crystallisation (participants coming to their conclusions) and prioritisation (participant deciding what is important to them) (Brott, 2012). A card-sort activity was used which had been developed by the HEA Enhancing Student Employability Coordination Team for use with students to help them to 'unpack' employability (ESECT, 2011). In this card-sort activity, students choose statements in the form of a 'lucky dip', thus reaching into a bag to pick out a statement about employability that they would then discuss (see chapter 6). The statements on the cards could be thematically organised by the themes present in the literature review (the capitals of academic study, work experience, careers guidance, and transversal skills). This semi-structured approach therefore allowed the researcher to pursue lines of enquiry shaped by the literature review, but also the flexibility for the student to discuss these aspects of employability through their own sense-making.

A card-sort approach also maps also onto the principles of template analysis, where participants' talk is guided towards avenues of fruitful enquiry (e.g. the identified employability capitals), while also allowing students the flexibility to talk about their lived experience in as free and fun way as possible, untethered from questions that may be more directive (see Sullivan, Gibson, & Riley, 2012), and thus also suitable for the idiographic underpinnings of IPA in Study 3 (see section below). Card-sorts also speak to 'event-related measures' which are an alternative to measuring SRL psychometrically. Here, SRL is observed 'in motion' through structured interviews where students talk about their academic learning and this talk is then coded numerically (for example Self-Regulated Learning Interview (SRLIS) (Zimmerman & Pons, 1986)). Thus, the card-sort technique supports individuals in

articulating their sense making about employability capitals in ways that are useful to Research Question 2 but also draw upon the SRL theory integral to Research Question 1.

Study 1 and Study 2 pointed to the need to understand further the processes that underlie employability engagement, particularly those related to identity. This led to a final qualitative study, described below.

4.6.0 Study 3

In Study 3, three final-year undergraduate students who were completing their HE learner journey and preparing to make the transition to graduate employment were interviewed in a single focus group. Both SRL and the process approach to employability highlight the importance of identity in mediating engagement with learning action, and combined with the findings of Study 1, pointed to the importance of exploring the role of identity in students' engagement with employability. By exploring issues of identity from the student perspective, Study 3 also drew upon ideas about the 'identity project' (Giddens, 1991, p.258) or 'moral career' (Goffman, 1959) whereby behind every person there is an institutional structure that shapes and guides their action. And, while the coupling of SRL and employability capitals offer a natural synergy, identity added a further dimension in a novel capture of the dynamics and complexity indicated in Study 1 and 2. Study 3 thus provided the opportunity to explore the relationship between identity and employability when the salience of employability may be greater than the first-year students in Study 2. The rationale for Study 3 was therefore to create rich experiential data from the student voice, which would provide insights into how identities related to employability may mediate their engagement with or resistance to practices associated with the employability capitals. For example, students who are

coached to take advantage of their social networks to access work experience may resist taking action because they view this work as inauthentic (see Brown & Hesketh, 2004).

To understand both the individual student experience and how students might collectively make sense of their engagement with employability, an idiographic study using Interpretative Phenomenological Analysis (IPA) on focus group data was conducted. This was designed to provide novel insights into how final-year undergraduates made sense of their employability as graduate employment loomed using the same card-sort activity for Study 2. IPA is useful for illuminating 'the things themselves, from the depths of silence, that it wishes to bring to expression' Merleau-Ponty and Lefort (1968, p.4) or as Bourdieu (2011, p.327) put it 'lifting the veil'. On this premise, IPA values small-scale research, whereby the priorities of the idiographic experience are brought to the fore (Smith, Flowers, & Larkin, 2010). Therefore, IPA was utilised as a creative and complementary technique to the template analysis of Study 2 and the quantitative interrogation of Study 1.

IPA is most frequently cited to Jonathan Smith's (1996) seminal paper and has a goal of uncovering cognitive process through analysis of meaning within a meaning-making process. The technique is often used in health research, likely due to its appropriateness for topics of existential importance to the individual, but also holds appeal for employability, and is gaining popularity across occupational psychology and education (see Larkin, Watts, & Clifton, 2006; Reid, Flowers, & Larkin, 2005; Smith et al., 2010). The technique is also of emerging interest in the SRL context, for example, holding utility for investigating how young people who are outside of the education system make sense of their learning engagement (Putwain, Nicholson, & Edwards, 2016). IPA is usually applied to interview rather than focus group data, however since there is a literature which suggests the advantages of a group design

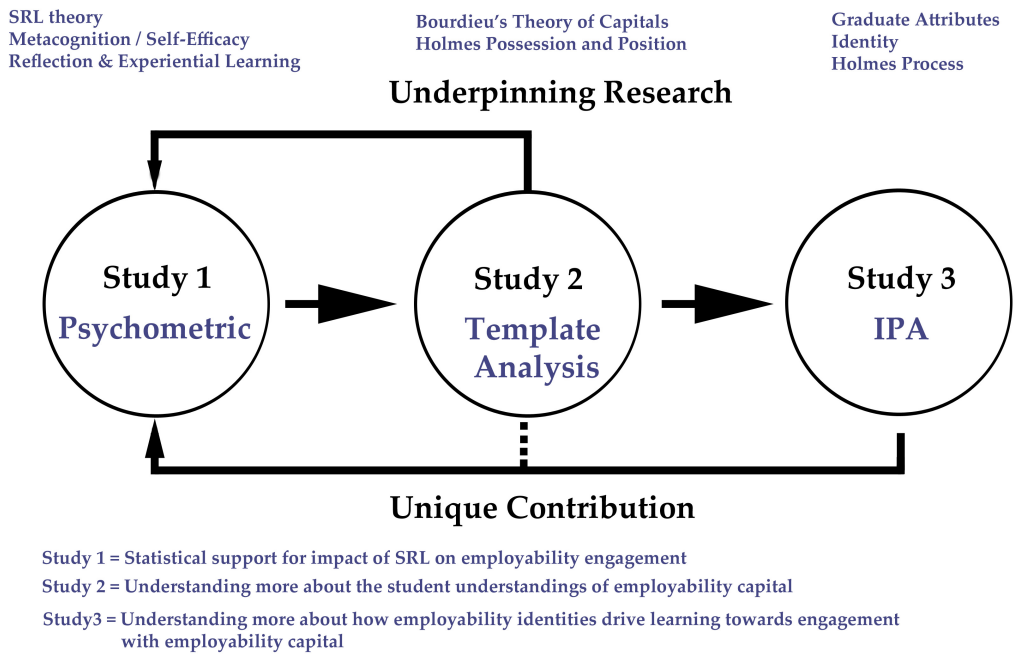


Figure 4.1: *Diagram of Thesis: Unique and Comprehensive Contributions*

to draw out personal lived experience within the 'context of its expression' (Palmer, Larkin, de Visser, & Fadden, 2010, p.117), Study 3 took up this novel development in IPA methodology for the purpose of exploring both the personal and collective sense making of Study 3.

In summary, a mixed-method design, consisting of three stand-alone studies (with integrated rationales) was employed to provide enhanced credibility and utility to the findings of the thesis in its analysis of the complex construct of employability. Each of the studies was designed to offer unique insights but also to be integrated in order to address the overarching aim of the thesis, which was to develop empirically supported evidence for how universities can best support students in preparing for graduate employment. The complex psychometric approach and qualitative components were thus brought together to address a range of interconnected issues surrounding employability, but also addresses a major lack of students' voices in the employability

literature. The rationale for this design is also illustrated in Figure 4.1

Bryman (2006) warns that a significant difficulty of mixed methods is the write-up of an integrated analysis. The current thesis addressed this problem by writing up each study separately and then triangulating the findings in the conclusion. This structure allowed all three studies to be conducted and evaluated within their specific methodological quality criteria and related research question and then brought together to enrich understanding. This point is also reflected upon later in the reflexivity section in the final chapter. The thesis also developed an integrated approach to the ethical issues emerging from the different studies employed, and the following section addresses these.

4.7.0 Ethical framework

Employability is a potentially anxiety-provoking issue for students, a consideration that warranted a sensitive approach to ethics. To develop such an ethical framework, this thesis used the notions of 'procedural ethics' and 'ethics in practice' (Guillemin & Gillam, 2004).

4.7.1 Procedural ethics. Guillemin and Gillam (2004) proposed the term 'procedural ethics' when outlining the activities required to gain ethical approval. The BPS Code of Human Research Ethics (2011) and BPS Ethics Guidelines for Internet-Mediated Research (2013) informed the design and execution of the studies in this thesis. These guidelines are rooted in ethical principles such as the Nuremberg Code and Declaration of Helsinki, which seek to maximise the autonomy and dignity of people, adherence to the principle of nonmaleficence (do no harm), promoting beneficence through justice and social responsibility, and having honesty and rigour in the generation of new

knowledge.

Aberystwyth University Research Ethics Panel awarded ethical approval to each stage of the research across the three studies. Gaining ethical approval required adherence to a functional 'checklist' approach to activities which offer protection from harm and guide research integrity. Each study used considerate recruitment practices, provided an information pack, gained informed consent, signposted how to access support, provided full withdrawal procedures and maintained data protection and anonymity. Thought was given to the execution of each study to ensure the well-being of participants, whose participation was considered to place them at no greater risk than that encountered in their everyday lives. However, participation had the potential to raise students' concerns about their engagement with employability, studying practices, or future employment. To address this concern, the qualitative studies' withdrawal procedures included signposting to careers guidance, while the quantitative study information included links to online career resources.

Since many of the students in Study 1, and all of the participants taking part in the qualitative studies were participating in research in their place of study, the anonymity procedures were especially stringent. Participants in the quantitative study generated their own keyword to anonymize their data, while for the qualitative studies any identifying details were removed on transcription and a pseudonym applied. The researcher informed the students that they would not be contacted again, nor would the researcher discuss who participated with any other person.

4.7.2 Ethics in practice. While procedural ethics are essential, Guillemin and Gillam (2004) warn that checklists can gloss over complex and subtle research dilemmas, and argued a need for a consideration of 'ethics in practice'. This strand is an

acknowledgement of the micro-ethics of human interaction, moving beyond the functional aspects detailed above and towards more amorphous aspects of ethical behaviour. Such thinking may, for example, include the trust and rapport between participant and researcher, appropriate levels of probing, or reflections on 'special events' during the research process which provoke challenges, transitions or revolutions in worldview. The thesis addresses ethics in practice through an explanation of the methodological rationale and engagement in reflexive practice by the researcher. For example, as per the earlier sections which detail the methodological framework.

The use of IPA further informs ways of doing reflexivity. IPA is vulnerable to the bias of the researcher, since analysis is performed by a researcher who, like any individual, has a unique cultural perspective (Smith, 2011). But this bias is a structural aspect of the approach rather than a limitation. Husserl (1970) conceptualised the analytical process as having, a goal of returning 'back to the things themselves' (phenomenological reduction), proposing that, through a skilful process of disengaging our relationships with the world, we can describe and understand the lifeworld of others. This 'disengagement' is considered to result in a state of 'epoche', where the investigator's understanding exists free from their cultural context. Thus, allowing the phenomenon to take on properties different from how they understood at first glance and bringing structural aspects (including both material and psychological) to awareness, as the object becomes 'what it is'. Several actions were taken by the researcher to facilitate epoche, or mitigate against a risk of not doing so. The analysis was conducted in a 'spirit of openness' (Smith et al., 2010, p.26) and by adopting a curious attitude (see LeVasseur, 2003). In addition, engagement in reflexivity formed a core aspect of the thesis design and analytic approach.

Reflexivity is a process of critical reflection in the context of research, an internal

dialogue about the kind of knowledge produced. Berger (2015) argued that a researcher's experience impacts on the knowledge generated , via the resources and participants they have access to and through influence on interpretations of data. Therefore, in alignment with the critical realist paradigm, research is not an objective reflection of a stable reality, but instead is a co-constructed by participant, researcher, and their relationship (Beer, 1997; Finlay, 2002).

Reflexivity prompts the researcher to consider how their personal experiences which intersect with gendered and racialised identities, sexual orientation and class may shape their understandings of the world and thus their engagement with all aspects of the research process (Berger, 2015; Bradbury-Jones, 2007; Finlay, 2002). From this standpoint, what is required is some self-analysis about how the researcher's positionality impacts on their interpretation of the data, as well as their engagement with the participants and wider research design. Jenkins (1992) proposes that researchers take two conceptual steps in this reflective self-analysis, asking 'what do I know?' and then 'how do I know that?'. To address these questions for this thesis, several features of the researcher's background were reflected upon, using a research diary and participation in critical psychology and interpretative phenomenological analysis research support groups. Some of the outcomes of these reflections in relation to specific experiences to Studies 2 and 3 are reported in their respective chapters 6 and 7, while chapter 8 provides an overview reflexive essay that concludes the thesis.

4.8.0 Summary

This chapter discussed three key aspects of the methodological framework of the thesis, namely, epistemology, mixed methods design and ethics. Critical realism was outlined as a fruitful paradigm for understanding the socially-informed construct of

employability. Building on the process approach to employability outlined in chapter 3, a rationale was put forward for using a mixed-methods sequential design. For Study 1, quantitative psychometric measurements and path analysis were justified in relation to the need to explore any predictive relationships relating to employability and the complex psychosocial construct of SRL. The rationale for Study 2 was that its use of template analysis would enable exploration of the student voice towards employability capitals of academic study, work experience, careers guidance, and transversal skills. This methodological approach allowed for an understanding of the employability capitals, building on Study 1, but also provided a foundation for the more idiographic approach adopted by Study 3, which used a novel group interpretative phenomenological analysis (IPA) on focus-group data from third-year students to explore subjective experience and employability identities. Together, these studies provided quantitative and qualitative insights into student experiences of employability that can be brought together in the final chapter of the thesis to address the aim of the thesis in providing empirically informed recommendations for university employability related interventions.

Having given an overview of the methodological framework, the following chapter begins the work of describing Study 1 in-depth, whereby quantitative psychometric measurements and path analysis were used to explore any predictive relationships relating to the employability capitals (of academic study, work experience,careers guidance and transversal skills) and the complex psychosocial construct of self-regulated learning.

Chapter 5

Study 1

5.1.0 Introduction

Preparing graduates for graduate-level employment is a major issue for HE. The undergraduate learner journey now encompasses employability, and consequently, students are expected to direct their learning towards diverse academic and employment goals. Drawing on Holmes' (2013) process approach to employability and through a review of existing literature (see chapter 3) the thesis identified Schraw et al.'s (2006) model of self-regulated learning (SRL) as best representing the underpinning construct influential in the process of learning towards the employability capitals of academic study, work experience, careers guidance, and transversal skills. The argument being that students who are more proficient at SRL will be more able to strategically manage their learning towards diverse learning activities. This argument led to the research question that structured Study 1, namely can SRL predict students' engagement with practices associated with employability capitals?

SRL is composed of metacognition, self-efficacy and epistemological beliefs, and informed by the literature review, all aspects of SRL were expected to predict student's engagement with all four employability capitals. Thus, students who understand about and are proficient at regulating their cognitive strategies (metacognition) were predicted to be more likely to engage in all four capitals of employability, but would only be motivated to act towards these employment capitals when they believed they could

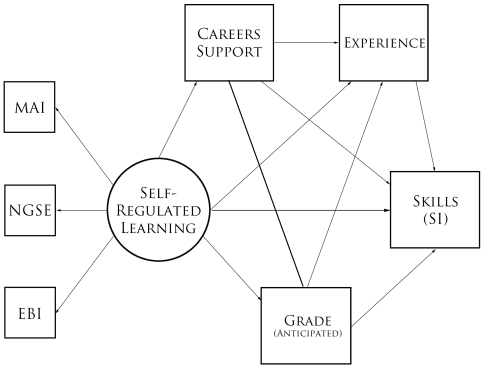


Figure 5.1: *Specified Model of SRL and Employability*

Diagram Key: Boxes to indicate observed variables and circles for latent variables. Blocked lines in the diagram represent expected or evidenced relationships. Arrowheads show the direction of tested relationships. Moreover, dotted lines show tested non-significant paths.

achieve a goal (having self-efficacy) and when they held beliefs about knowledge that supported that action (epistemological belief). Guided by the previous chapter that argued the case for using a psychometric approach to measure SRL, the research question for Study 1 was addressed by testing four main hypotheses (listed below). The specified model used to test these hypotheses is also illustrated in Figure 5.1.

- Hypothesis H1: A students' SRL status will have a direct effect on their anticipated degree classification.
- Hypothesis H2: A students' SRL status will have a direct effect on their engagement with work experience.
- Hypothesis H3: A students' SRL status will have a direct effect on their engagement with careers guidance.
- Hypothesis H4: A students' SRL status will have a direct effect on their engagement with transversal skills.

These hypotheses were examined through path analysis allowing Study 1 to identify which direct and indirect effects of SRL (as measured by meta-cognition, self-efficacy and epistemological belief) might be informative to students' engagement with the employability capitals of academic study, work experience, careers guidance, and transversal skills. In the coming sections, the rationale is given for selecting four instruments to meet the need of measuring SRL by including dimensions of metacognition, self-efficacy and epistemological belief in the employability context. These instruments were the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994); the General Self-Efficacy Scale (NGSE) (Chen et al., 2001); the Workplace Self-Efficacy Scale (WSSE) (Fan et al., 2013); and the Epistemological Beliefs Inventory (EBI) (Schraw et al., 2002). In addition, Study 1 needed a means of measuring engagement with the employability capitals of academic study, work experience, career guidance, and transversal skills. Measurement of employability engagement was achieved through questions developed specifically for Study 1, the process for developing these are also outlined in the coming sections. The data from these instruments also allowed analysis of a series of sub-hypotheses (outlined later in the results section) which further allowed the study to address its research question.

5.2.0 Method

5.2.1 Design. This study used a quantitative cross-sectional design, administering an online psychometric instrument to a sample of undergraduate students in the UK. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) and Mplus Version 7.31.

Table 5.1: *Study One: Demographic Characteristics*

Features		N	%
University	Aberystwyth	175	59.3
	Other	119	40.3
Gender	Female	191	64.7
	Male	103	34.9
Nationality	British	246	85.1
	International	44	14.6
	Missing	4	.6
Age	18-21	239	81
	22-30	55	18.6
Year of study	1st	106	35.9
	2nd	67	22.7
	3rd	101	34.2
	4th*	20	6.8
Degree Classification (Anticipated)	1st	52	17.6
	2:1	142	48.1
	2:2	36	12.2
	3rd	5	1.7
	Missing	62	21
Socioeconomic Status	Higher	111	37.8
	Intermediate	64	21.8
	Small employers	29	9.9
	Lower supervisory	12	4.1
	Semi-routine	10	3.4
	Never worked	6	2.0
	Missing	62	21

Note: * indicates 4th year of an undergraduate programme.

5.2.2 Participants. Study 1 quantitatively investigated the undergraduate student population, with the intention of stratifying groups and making recommendations for the utility of SRL when thinking about employability in the HE context. Standard-entry students are acknowledged as important stakeholders of employability, but also as an under-investigated group (Tomlinson, 2008).

294 students enrolled at universities across the UK contributed to the data analysed. The demographic characteristics of these students are displayed in Table 5.1 (p.113). In summary, the participants were from a range of mixed-disciplines, aged 18-30, 65% were female, 85% identified as British, and 38% reported a higher SES background. Roughly similar numbers of students participated across the year groups (except the 4th-year category).

Thinking about age

In total, Study 1 collected 318 completed instruments from undergraduate students who are aged over 18 and enrolled in a British university. HE categorises a student as mature post aged 21. Participants in Study 1 recorded their age from seven ordered categories: (1) 18-21; (2) 22-30; (3) 31-40; (4) 41-50; (5) 51-60; (6) 61-70; (7) 71+. Following data preparation procedures, participants aged 18-21 and 22-30 were treated as a single group and twenty-four participants aged 30+ were excluded from further analysis. There are two theoretical reasons why a consideration of outliers relating to age was important to the analysis. Metacognition and epistemological belief are theorised to develop well into adulthood (Schraw & Dennison, 1994; Schraw et al., 2002). Therefore, younger participants may yield different scores to those who are older. Secondly, since older participants would have had more time to gain skills through employment, it was likely that their overall skill level would be higher. The

rationale for this alongside supportive statistical analysis is provided in the appendices, see Appendix C.2 (p.385).

Study 1 also included a measure of socioeconomic status (SES). The National Office of Statistics guidelines (ONS, 2010) were consulted in creating seven SES categories. However, since only 5.4% of students belonged to the lowest socio-economic group (see Figure 5.2), the scores were transformed into two categories representing a higher (52 %, group 1) and lower SES (48 %, groups 2,3,4,5,6,7).

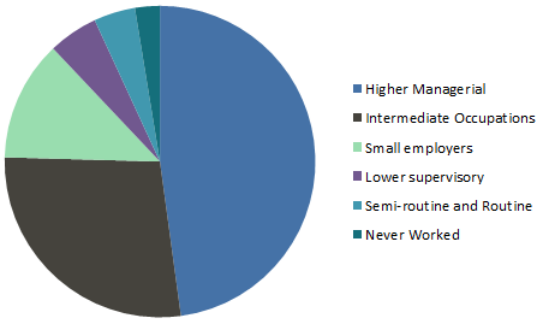


Figure 5.2: *Pie chart illustrating the SES of the student sample*

Attention to sample-size strategy ensures that data is statistically valid, reliable, and unbiased (McColl et al., 2001). This thesis used path analysis to evidence relationships. Path analysis suggests a satisfactory sample size to be 300 participants, or above the minimum participant to variable of 10:1 (Kline, 2000; Pallant, 2013; Tabachnick & Fidell, 2013). The minimum sample size was satisfied for all instruments, in addition to Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)[1] and Bartlett's Test of Sphericity values were observed as 'good' (Field, 2009; Hutcheson & Sofroniou, 1999) (see Table 5.2 on the next page). Data preparation, therefore, established the statistical adequacy of the Study 1 sample as good.

[1]The KMO yields a statistic between 0 and 1 with scores greater than 0.5 recommended. Values closer to zero represent an undesirable diffuse score pattern, while those closer to one indicate compact clusters which should demonstrate distinct and reliable factors.

Table 5.2: *Tests of Sampling Adequacy*

Instrument	Participant: Item Ratio	KMO	BS
MAI	6:1	.80	3749.31*
EBI	11:1	.73	1546.04*
NGSE	36:1	.94	1502.44*
WSSE	13:1	.93	3815.82 *
SI	7:1	.91	5455.94*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO), Bartlett's Test of Sphericity (BS)

p=>0.05 *

5.2.3 Methodological theory. Research Question 1 guided a quantitative approach to measuring and mapping employability engagement. Multiple regression was considered as an alternative analytic technique for Study 1. However, this was unsuitable as the variables are theoretically correlated. Also, multiple regression does not allow for multiple dependent variables or furthermore calculate the indirect paths and measurement errors which were important to investigating employability engagement. Structural equation modelling was also considered for Study 1. However, the analysis could not achieve goodness-of-fit sufficient for SEM to be conducted due to the complexity of the variable subscales. To address this issue advanced methods of data manipulation are available, including a process of parcelling. However, since the focus of the research questions related to the super-ordinate constructs and parcelling is controversial due to data manipulation (see Schumacker & Lomax, 2004), path analysis was conducted.

Path analysis is an extension of regression and belongs to the structural equation

modelling group of statistical tests (Tashakkori & Teddlie, 2010). The technique takes an iterative approach, enabling the evaluation of relationships amongst variables, testing how well a theoretical model fits that observed by the data collected (illustrated earlier by Figure 5.1, p.111). Therefore, if SRL is predicted to impact on employability engagement what would the statistical mapping of those relationships look like, and furthermore, what inferences could be made about the pathways between variables. Statistical modelling indicates causation, thus variable A is predicted to "cause" an impact on variable B. But inferences about causation are based only on the proposed model with data collected from a single time-point, and thus several models could appropriately explain a construct. The value of path analysis is the capacity to infer causal paths, take into account measurement errors, to model multiple dependent variables, to calculate direct and indirect effects, enable the testing of overall model fit; and finally to handle non-normal or difficult data (Dion, 2008; Wang & Wang, 2012).

A five-step process to guide path analysis was employed as recommended by Schumacker and Lomax (2004): (a) specification, a prediction of the anticipated model achieved through a theoretical literature review (shown in Figure 5.1 on page 111); (b) identification, whether unique values are observable for the differing variables of the model, typically achieved through a process of factor analysis; (c) estimation, the statistical calculation of the relationships between variables; (d) testing fit, the calculation of values which indicate how well the empirical data matches the specified model; (e) re-specification, a process of model improvement based upon the fit indices. The first stage of this study was to consider which questions were important to ask and what instruments would be able to access that information, described below.

5.2.4 Instruments. The methodological framework established that psychometric instruments are suitable for the investigation of SRL, facilitating the transformation of lived experience, beliefs, and attitudes into numerical data suitable for statistical analysis (see chapter 4).

Study 1 captured self-report data relating to engagement with employability and SRL. Self-report required that the participant evaluate and then report their status in response to a set of questions (items) to capture experience via a numerical (or Likert) scale. In addition to being efficient and inexpensive to administer, there are several methodological advantages to self-report instruments. The approach recognises that people often have a better quality and quantity of information about themselves compared with observational research, and can enjoy engaging in the process which in turn increases motivation to participate (Robins, Norem, & Cheek, 1999). There is evidence for the accuracy of self-report data, with no qualitative or quantitative evidence of difference when comparing self-report and interviewer-completed instruments (see Walsh, 1967; McColl et al., 2001).

The following section outlines the rationale for the instruments selected to represent SRL. Then, in Section 5.2.6 (p.124) the method of capturing engagement with the employability capitals is described. The entire instrument can be seen in Appendix C.4 on page 410.

5.2.5 Measuring self-regulated learning. Corresponding to Schraw et al.'s (2006) model of self-regulated learning, four instruments were used to measure SRL in the employability context. These instruments are: the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994); the General Self-Efficacy Scale (NGSE) (Chen et al., 2001); the Workplace Self-Efficacy Scale (WSSE) (Fan et al., 2013); and the

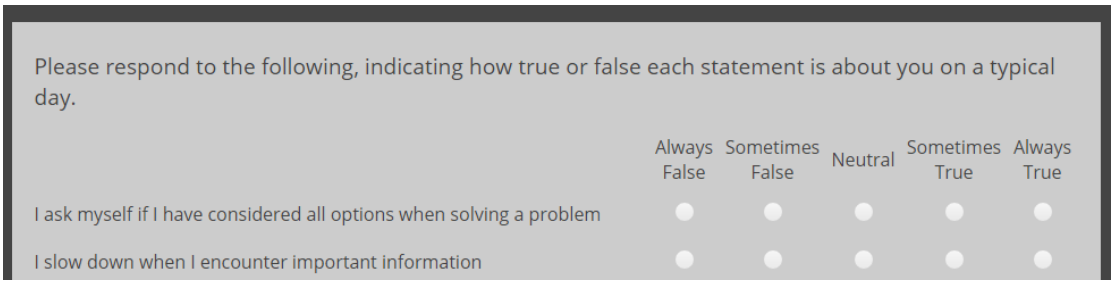


Figure 5.3: *Example Screenshot: Metacognitive Awareness Inventory (MAI)*

Epistemological Beliefs Inventory (EBI) (Schraw et al., 2002).

In the next section, evaluations of reliability (precision of scores to reflect the psychological variable under investigation) and face validity (that the language used within the items is appropriate for the participants) are provided. These factors reduce the risk of measurement error or non-response (Furr & Bacharach, 2013; Kline, 2000). Later, Study 1 reports the reliability of these instruments using factor analysis before the path analysis. Self-report does have further considerations of reliability, such as presentation effects and demand characteristics which are addressed at the end of the section.

MAI: Metacognitive Awareness Inventory. Study 1 sought a way to measure metacognition as a component of SRL. There are several instruments available in the field. For example, the Awareness of Independent Learning Inventory (AILI) by Meijer et al. (2013) is designed for use within HE and used items such as 'I know which assignments students really need to work at systematically'. However, consistent with the traditions of an SRL approach, most instruments lacked the broader applicability to learning outside of academia.

A suitable instrument was found in the Metacognitive Awareness Inventory (MAI), published by Schraw and Dennison (1994). The MAI is a 52-item two-factor instrument of metacognitive development in a non-specific learning context. Two

factors distinguish the theorised components of metacognition, that of knowledge of cognition and regulation of cognition. The MAI is also one of the most commonly administered measures of metacognition and has since been translated for different demographic groups such as across age group and nationality (see Lai, 2011b).

Study 1 used the MAI because of its applicability to diverse contexts and established psychometric structure. For example, the instrument included statements such as 'I slow down when I encounter important information' or 'I ask myself if I have considered all options when solving a problem'. Participant responses to these statements were recorded using a 5-point Likert scale ranging from 'Always False' (1) to 'Always True' (5) (see Figure 5.3 above for an example screenshot). Completion of the MAI yielded a composite score which represented lower to higher metacognitive development.

The MAI instrument was validated using 110 undergraduate psychology students at a large American university. Schraw and Dennison (1994) reported the internal consistency as excellent with Cronbach's alpha values of α .93 and α .88. It is noteworthy that the original scale was validated using a 100 point bipolar scale, with other literature reporting a 7-point Likert scale (see Teo & Lee, 2012). However, following email communication with Professor Schraw (the instrument author) and consultation with other research in the metacognition literature (see Young & Fry, 2008), a 5-point Likert scale was used by Study 1.

NGSE and WSSE: Self-efficacy. Study 1 also sought a way to measure self-efficacy as a component of SRL. There are multiple instruments of self-efficacy available, which are used across fields of health, education, and the workplace (Chen et al., 2001). Several were considered for Study 1. For example, Sherer et al.'s (1982) General Self-Efficacy Scale (SGSES) is a 17-item instrument which includes items such as 'I give

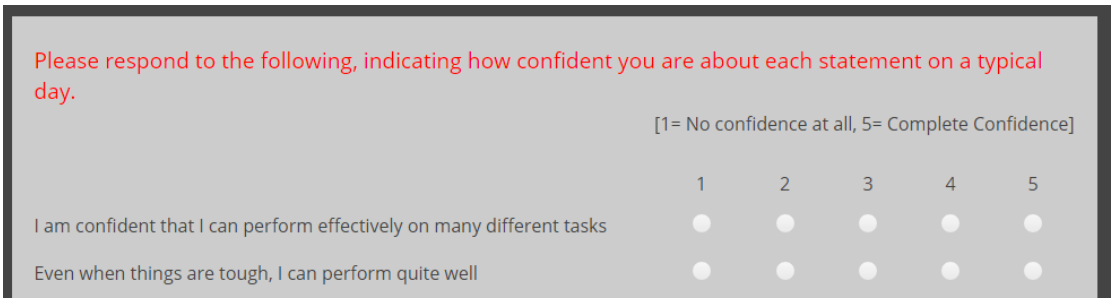


Figure 5.4: *Example Screenshot: New General Self-Efficacy Scale (NGSE)*

up easily'. This instrument is widely recognised as valid, but there has also been a critical evaluation, with questions raised about its status as a single or multiple factor instrument (Chen et al., 2001; Imam, 2007).

Two instruments were selected as most appropriate for addressing the research question of Study 1. The New General Self-Efficacy (NGSE) provided a means of measuring an individual's belief that they can successfully perform across generalised situations. Also, the Workplace Social Self-Efficacy (WSSE) scale was used as a means of measuring the student's belief about performance in the work context, although it was excluded from path analysis. Both are outlined below:

The NGSE by Chen et al. (2001) is a short 8-item one-factor instrument, measuring self-efficacy as a single 'trait' like construct. The instrument defines self-efficacy as 'one's belief in one's overall competence to effect requisite performance across a wide variety of achievement situations' (Eden, 2001, p.75). The NGSE was validated using 316 undergraduate students (Age M= 24, 78% female) at a US university. It includes items such as 'When facing difficult tasks, I am certain that I will accomplish them'. Responses are recorded on a 5-point Likert scale labelled from 'No Confidence At All' (1) to 'Completely Confident' (5) (see above for Figure 5.4). Chen et al. (2001) found support for a single factor model based on face validity, inter-item correlations, and factor loadings. The authors achieved construct validity by measuring the NGSE against

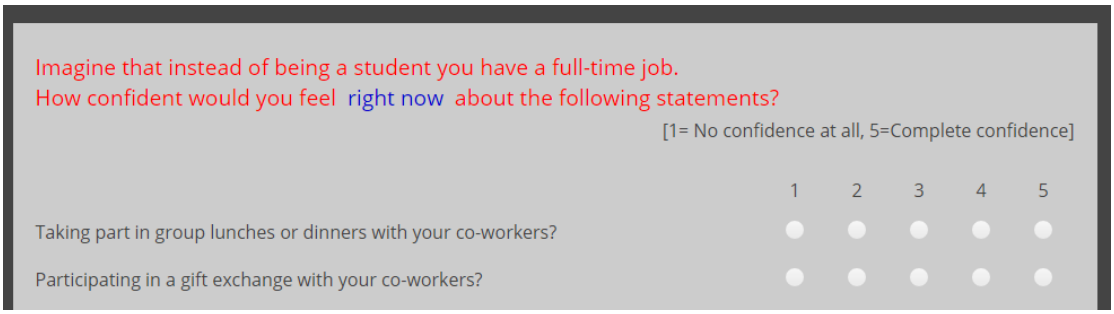


Figure 5.5: *Example Screenshot: Workplace Social Self-Efficacy (WSSE)*

the Rosenberg 10-item Self-Esteem Scale (Rosenberg, 1965) and 30-item Kuder Task Self-Efficacy Scale (Lucas, Wanberg, & Zytowski, 1997). The NGSE is demonstrated to be unidimensional, internally consistent (Cronbach's α = .87,.88 and .90), and stable over time, with test re-test reliability coefficients values of R_{t2-t32}=.66, R_{t1-t3}=.62.

As a second measurement of self-efficacy, the WSSE by Fan et al. (2013) is a 22-item four-factor instrument that measures beliefs about engaging in workplace social tasks. Validated using a sample of over three-hundred employees, this is a newly developed instrument based upon a priori theory of social self-efficacy dimensions of social gathering, public performance, conflict management, seeking and offering help. It poses questions such as 'How confident are you at presenting to a group of potential clients?' and records responses on a 5-point Likert-type scale from 'No Confidence At All' (1) to 'Completely Confident' (5) (see Figure 5.5, p.122). Confirmatory factor analysis (CFA) demonstrated acceptable model fit ($\chi(df$=203) = 778.02, p <.01, Non-Normed Fit = 0.95, Comparative Fit Index (CFI) = 0.96, standardized root mean square residual (SRMR)=0.7). The overall Cronbach's α coefficient is excellent, 0.93, with validity confirmed using a battery of psychological measures including the Personal Social Self-Efficacy (PSSE) (Smith & Betz, 2000) and the Interpersonal Conflict at Work Scale (Spector & Jex, 1998). These qualities established the WSSE as a suitable instrument for Study 1 based on its established psychometric structure, but also because

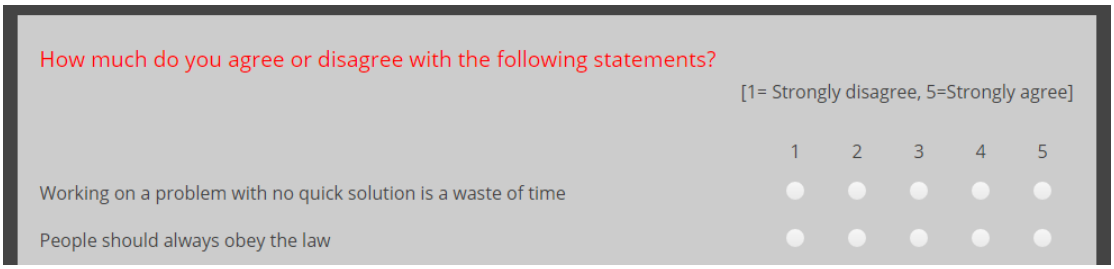


Figure 5.6: *Example Screenshot: The Epistemological Beliefs Inventory (EBI)*

it offers to measure self-efficacy beyond the context of academic study.

EBI:The Epistemological Beliefs Inventory. Study 1 also sought a way to measure epistemological belief as a component of SRL. Most instruments of epistemological belief offer variants on the influential work of Schommer (1990), which through the Epistemological Questionnaire (EQ) captured the different ways in which people think about knowledge. The Epistemological Beliefs Inventory (EBI) by Schraw et al. (2002) is a contemporary update of Schommer's work. It offers a 28-item, 5-factor instrument measuring difference across attitudes towards knowledge generation using factors of Certain Knowledge, Simple Knowledge, Quick Learning, Innate Knowledge and Authority. The authors validated the instrument using 160 participants (104 females), aged between 18 and 46 (M=21.36, SD=4.73) and recruited from a US student population. Responses to statements such as 'Most things worth knowing are easy to understand' were measured using a 5-point Likert-type Scale labelled from 'Strongly Disagree' (1) to 'Strongly Agree' (2) as shown in Figure 5.6 (p.123). The scale operates from negative to positive, so individuals with more sophisticated beliefs about knowledge will have a lower overall score. EBI is the only instrument used with reversed items to reduce response bias. Schraw et al. (2002) reported the overall Cronbach's α coefficient as adequate, with above .6 for each sub-scale with five factors explaining 60 % of the total variance. Comparison with the Epistemological

Questionnaire (EQ) Schommer (1990) and a critical reading task confirmed validation.

In summary, this section outlined the four instruments selected to meet the need of measuring SRL, including: the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994); the General Self-Efficacy Scale (NGSE) (Chen et al., 2001); the Workplace Self-Efficacy Scale (WSSE) (Fan et al., 2013); and the Epistemological Beliefs Inventory (EBI) (Schraw et al., 2002). The next section outlines the measurement of the employability capitals of academic study, work experience, career guidance, and transversal skills.

5.2.6 Measuring employability. Study 1 explored employability through questions relating to student engagement with the valued capitals of employability. The rationale for the developed items are detailed below, organised around the capitals of academic study, work experience, careers guidance, and transversal skills.

Academic study. The eligibility criteria for Study 1 included participants being enrolled on an undergraduate programme, but a measurement of engagement in academic study was needed to reflect its status as a valued capital. The 'essential 2:1' grade category represents academic engagement in the graduate employment context (Pitcher & Purcell, 1998), so in this study, academic engagement was captured by grade performance to date. Participants responded to a single question which asked for projected grade outcome using the UK classification system of 3rd Class, 2:2, 2:1, and 1st Class. Students were asked to use performance to date to determine this value.

Work experience. A second capital of employability is work experience. The literature review presented a critique of what constitutes as 'quality' work experience (e.g. Hinchliffe & Jolly, 2011; Reddy & Moores, 2006). In response to questions

about what constitutes a valued capital, the instrument included three categories of work experience designed to create an inclusive measure. The category of 'non-graduate' work experience captured the sorts of roles students may engage in to earn money, such as bar work and retail. The category of 'graduate' work experience captured graduate-entry roles, such as work with vulnerable adults and children. The final category of 'social groups, clubs and societies' captured the wider aspects of the university experience which might contribute to student employability.

The participants were asked to record a yes/no answer response about to whether they had engaged in non-graduate, graduate, or groups and societies work experience. A second question captured magnitude for each category from short to extensive exposure. These questions yielded a composite score between 0 and 9, with zero meaning no experience and nine indicating substantial experience. This approach to measurement captured only quantitative, and not qualitative, engagement. Thus, a high score indicated more action, rather than more skill.

In a final transformation, the researcher weighted the scores of students who had 'graduate' type in combination with no 'non-graduate' type, by three points. The underlying rationale of this weighting procedure was that, on the basis of the literature review, to boost employability engagement a student with graduate experience would not be signposted to engage in 'non-graduate' roles. This procedure was carried out on five cases as due diligence but did not significantly impact on the results.

Career guidance. A third capital of employability is engagement with careers guidance. In consultation with the literature review and careers professionals, the instrument included five questions that captured engagement. The responses were on a Yes, Plan to This Year, and No scale, with 'plan to' operating as a midpoint (see Figure

Figure 5.7: *Example Screenshot: Engagement with Careers Guidance*

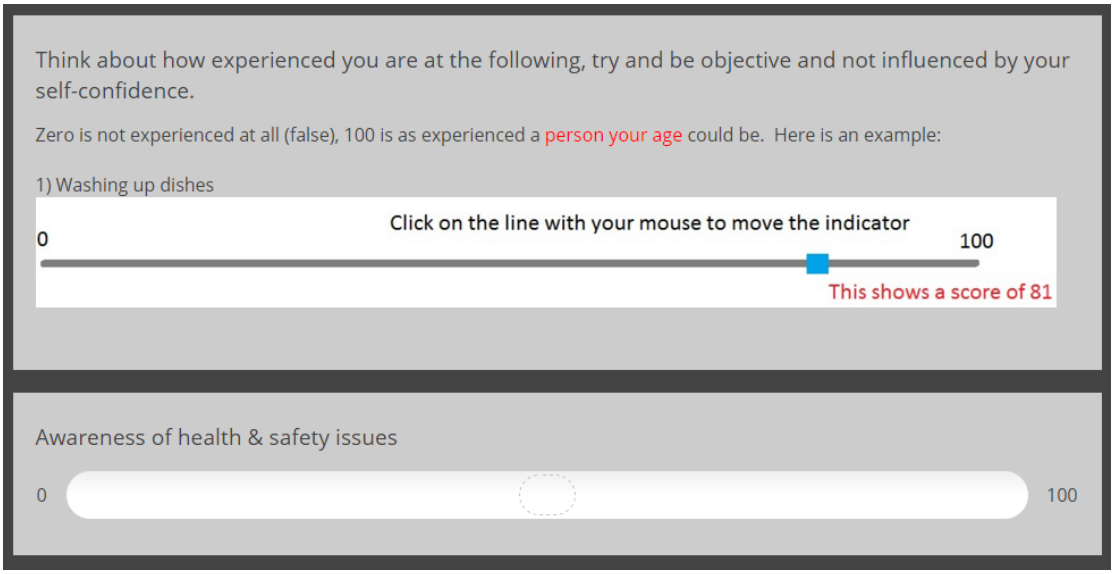


Figure 5.8: *Example Screenshot: Skills Inventory (SI)*

5.7, p.126). These questions yielded a composite score of between zero (representing no engagement) and fifteen (representing substantial engagement). Thus, as with work experience, higher scores represent more engagement with careers guidance, but inferences about skill cannot be made.

Transversal skills. A final capital of employability is employer-driven transversal skillsets. A skills inventory was developed to capture students' transversal skill status, for clarity referred to as the Skills Inventory (SI). To create the instrument, a thematic style analysis was used to review popular taxonomies employability skills

(see Table A.1, p.367). Using the taxonomies, 41 transversal skills were identified and categorised, including, self-management, solving problems, working together, communication, understanding business and using numbers, language and information technology literacy.

The SI used a 100-point bipolar scale with all items were displayed beneath an introductory question of 'If zero is not experienced at all, and 100% is as experienced a person your age could be, then how experienced are you at the following?' as shown in Figure 5.8. This design provided a means to measure skill status, while minimising cognitive load, and working within the parameters of familiar ways to objectively appraise skills, since students reported thinking about themselves as on a continuum 0-100%. The mean scores are displayed in Appendix Table C.11, (p.397).

Using a thematic structure, superordinate categories of skills were organised into an a priori structure of five 'Awarenesses' categories: technical, commercial, ethical, communication and project. The researcher selected the term 'awareness' to capture employer feedback that graduates are only anticipated to have a foundation understanding, or awareness, rather than established skill. The reliability of this process is described later in Section 5.4.4 (p.145).

As due diligence of data validity, the SI scores were weighted by the amount of work experience gained. The rationale being that employers use work experience as evidence of skills and, therefore, while the student may perceive their skill status to be high, their 'employability' would be assessed by their engagement with the workplace. The researcher calculated a weighted value by summing the z-scores of each employability variable. Therefore, a student who reported their skills as high, but had no work experience or engagement with careers would receive a lower overall score to reflect this. Weighted values were not significantly different from the unweighted score and

were strongly positively correlated, $r(292)=.78$, $p<.01$. It was, therefore considered appropriate to retain the original scores, since students were making a self-calculation as they reported their status in relation to their peers.

In summary, informed by Schraw et al.'s (2006) model of SRL, this study included the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994), the General Self-Efficacy Scale (NGSE) (Chen et al., 2001), the Workplace Self-Efficacy Scale (WSSE), and the Epistemological Beliefs Inventory (EBI) (Schraw et al., 2002). Questions were developed to capture engagement with the employability capitals of academic study, work experience, career guidance, and transversal skills. The next section details issues of self-report data, including how these influenced the presentation of the SEI to participants of Study 1.

Self-report data. Study 1 used an online survey provider to distribute the self-report instrument to participants. Several brands of instrument distribution software were considered for use, including SurveyGizmo, SmartSurvey, and SurveyMonkey. Fluid Surveys, a commercially available 'build-your-own' survey software, was selected because it offered superior functionality, including allowing for randomised questions, a 100-point sliding scale, participant progress tracker, testing for access accessibility compliance, and a device-sensitive (computer, phone, tablet) interface. There are several issues of rigour which relate to how instrument questions are presented to participants and demand characteristics, briefly outlined below.

The presentation of instruments is important because of ordering effects, primacy effects, and truncating. The order in which participants receive questions is known to impact responses, with correlations between variables strengthening as the material builds in the instrument (Schwarz & Strack, 1991). In Study 1, randomisation of items

allowed for some variation in presentation. Therefore, each participant received the items from each instrument in a different order. Also, to reduce the risk of primacy effects (where the material presented affects subsequent responses), the items relating to employability capital and demographic information were placed after the instruments of SRL. The rationale being that exposure to the questions about employability may influence participant's thoughts about their approach towards learning. Schwarz and Strack (1991) also evidenced that, when presented with a question, people 'truncate', starting the search for an answer from the moment that enough information is received. To mitigate against the risk of truncating, a contextual introduction preceded all item groupings, for example, 'Imagine that you started work today' followed by the questions about self-efficacy. To minimise cognitive load and fatigue, where possible items were limited to 12 to 18 words per line with no more than ten items per page. The SEI avoided italics, underlining, and hyphens which impact on accessibility software. An evaluation of readability yielded a Flesch-Kincaid Reading Ease Scored of 61.8/100 (60-70 recommended), Average Grade Level at 8.8 (>8 recommended), and a Gunning Fog score of 14 (>12 recommended).

Self-report concerns are also heightened by 'demand characteristics', which can result in a bias in how the participant answers a question. 'Social desirability' or 'malingering' can occur when participants respond in a way that creates a positive or poor impression of themselves. 'Acquiescence bias' or 'extreme' responses occur when participants either repeatedly choose the same values or selects values towards the end of a scale for no determinate reason (Furr & Bacharach, 2013; McColl et al., 2001). To assist participants in making informed decisions and encouraging honesty, the researcher provided an information pack with clear study details and assurances of anonymity. All item responses were optional, including those deemed potentially

emotive (e.g. age or socioeconomic background), therefore increasing the possibility that participants would complete the entire SEI. Finally, all of the items in Study 1 were categorised as direct self-rating (Robins, 2009), meaning that, while calculation of composite scores took place, there was no underlying intent to mislead or deceive. Together, these actions mitigated against the risk of response bias, ordering effects, and measurement error in Study 1.

5.2.7 Procedure. To achieve the desired sample, invitations to participate in Study 1 were distributed via multiple channels, which included a direct email from academic departments, through discipline leads of the HEA, and social media advertisement using Twitter and Facebook. Internet distribution is a cost-effective, quick, aesthetically pleasing, and flexible approach that reduces the risk of input error (Furr, 2011; Lumsden, 2007). There is an increasing appetite for the efficiency of internet-mediated research, supported by evidence for an increase in participant engagement, in comparison with traditional paper-based surveys (Greenlaw & Brown-Welty, 2009) and increased engagement with sensitive questions (Tourangeau & Smith, 1996). Nonetheless, in response to concerns about a 'digital divide' (Lumsden, 2007) or differences across participant accessibility, a paper-based instrument was available, although none were requested.

All advertisements provided brief study information, ethical points, and a link to the online 'landing' page. On clicking a link to the study, participants were presented with brief information about the researcher, study information, and eligibility criteria. If the participant was happy to proceed, informed consent was gained, and a unique anonymous identifier generated. The online survey provider then guided each participant through the completion of the instrument. On completion of the study, the

participant received debrief information and a feedback box. Participants on average took 38 minutes to complete the study, although this should be treated with caution since the instrument could be left dormant on the computer screen. Following data collection, the researcher downloaded all results to an Excel spreadsheet.

5.2.8 Pilot Study. Before the main data collection, a pilot study was conducted with undergraduate students who completed the instrument and also provided feedback about the process of completing the instrument. This activity allowed for some issues known to impact reliability and validity to be considered: for example, the demand on participants through the length and presentation of the instrument was evaluated; the comprehension of instrument items and questionnaire instructions could be confirmed; and finally, statistical analysis allowed for a provisional exploration of the data. The following section briefly outlines the pilot study.

Method. The pilot study included 28 undergraduate students from a UK University, recruited opportunistically by convenience and ease of access. The sample size was guided by Bonnett and Wright (2000) who suggest n $\geq$ 25 for Pearson correlations. Ethical considerations mirrored those of the main study, and all participants provided informed consent. The demographic breakdown of these participants is presented in Appendix Table C.1 (p.382). More females and those from higher SES groups responded to the advertisement. This finding demonstrated the potential for sample bias and indicated the value of a broad advertising campaign for the main study.

The instrument included the MAI, NGSE and measures of employability capital as described in the previous section. During the pilot stage, each page of the instrument included a free-text box with a request for feedback. Data were collected in July and

August of 2013. The average pilot completion time was 37:46 minutes. The instrument completion time was long, ranging from 8:35 minutes to 3:21 hours, but the participant could leave the instrument dormant on their screen. 107 potential participants clicked on the study link, with 26% completing the entire instrument. Furr (2011) warned of lower completion rates for internet-based research because it is usually quick and demands less initial effort from the participant. Statistics from the pilot study supported this inference, since most participants who withdrew from the study exited shortly after starting. Thus, they may have clicked the link, through initial interest, but with no intention to participate further. Overall, the participants reported that the items were well understood and of acceptable length. In particular, comments about the visual presentation were positive, with some students reporting that participation was 'fun'.

Results. The results of the pilot study indicated that participants were interacting with the instrument in ways that supported their use. For example, the data were normally distributed, thus suggesting that main data collection would be suitable for parametric analysis; and only twenty-five pieces of data were missing across the data. Visual checking of the missing data did not indicate any pattern of obvious participant censorship. There was an exception in that four individuals (14 %) opted not to respond to the question about socioeconomic status (SES). This indicated that SES is a sensitive question, but no qualitative feedback supported this interpretation. There was some indication of confusion about SES terminology, and so extra examples of occupations were added.

Employability engagement captured by the pilot data indicated that participants responded to items in anticipated patterns. The Skills Inventory data indicated a normal distribution (M=77.98, SD=8.29). 'Awareness of Profitability' showing the lowest

overall scores and 'Using the Internet' the highest. Also, 96.4% of participants had work experience relating to 'non-graduate' student roles, with 41% reporting some form of graduate-level work experience. Both results were predicted in the target population. Finally, the distribution of scores concerning engagement in careers guidance also indicated a normal distribution (composite score M=9.46, SD=2.28), with most students having 'signed up to receive information' and least students 'intending to engage 1:1.' Again the results provided early support for concerns about student dis/engagement present in the literature base.

Pearson product-moment correlation coefficients were performed as shown in Appendix Table C.3 (p.384). Significant relationships were demonstrated across the skills and metacognition, $r(28) = .36$, $p < .05$, and self-efficacy and metacognition, $r(28) = .46$, $p < .01$. Engagement with careers guidance and work experience showed a positive correlation together, $r(28) = .32$, $p < .05$, but not with the psychological measures. Calculation of Cronbach's alpha determined reliability [2]. Appendix Table C.3 (p.384) shows all calculated reliability values, all were positive for further development of the instrument. Qualitative feedback prompted some slight changes to terminology, for example, 'interrelations' to 'relationships' and 'diligently' to 'taken care'.

In summary, the purpose of the pilot study was not to make inferences about the findings, but to evaluate the instrument potential. Positive feedback from participants about the instrument, alongside provisional correlations and reliability values, was supportive of moving to the main phase of data collection. The next section outlines the data-preparation procedures for Study 1. The reliability profile of these instruments is explored using factor analysis, alongside issues of criterion and construct validity.

[2]Where a coefficient of α 0.70 is considered to be acceptable (Field, 2009)

Finally, the data is explored using a variety of statistical tests, including path analysis to evidence the hypothesised relationships.

5.3.0 Data preparation

The analysis included 294 completed instruments. Data were downloaded from the survey host and converted to Excel format before being 'spot-checked' to ensure accurate transferral. The research applied unique anonymous identifiers to each participant's data and a separate file held any instruments abandoned in the early pages.

The next section explains the rationale for data preparation activities, including the identification of missing data patterns and outliers, testing for normality and internal consistency, and finally, calculations of sampling adequacy.

5.3.1 Missing data. The data included two forms of missing data, which were of minimal influence, but guidance was followed to find appropriate solutions and minimise the impact on subsequent statistical inferences. The reasons why data is missing is important, whether data is absent due to human error, for example, or participant censorship. The characteristics of participants with complete data may be different from those groups with missing data. For example, given that metacognition relates to being conscientious behaviours (see Turban, Stevens, & Lee, 2009), it may be anticipated that participants completing all items may demonstrate a higher metacognitive score than those who miss questions out. Therefore, simply removing the missing cases may bias the overall results towards the 'complete' group which results in a reduction in power (Tabachnick & Fidell, 2013).

Missing completely at random (MCAR). The data included some missing single-item responses, see Table 5.3 (p.136). Visual inspection using the Excel highlight cells option suggested no obvious pattern. Moreover, the frequency of missing data across the individual items was well below the advisory 5% (see Tabachnick & Fidell, 2013). Missing data which is scattered is called MCAR and is less important than patterned missing responses, indicating accidental omission by the participant (Tabachnick & Fidell, 2013). Consequently, two data files were prepared: the first retained the missing data for confirmatory factor analysis using Mplus, while the second used Expectation-Maximization (EM) technique in SPSS. Both Mplus and EM seek to 'plug' the data with a figure which is intended to retain the features of the existing data, and thus 'estimate' the value of the missing data.

Missing not at random (MNAR). The data also included a small number of missing responses where a reason for absence is probable (see an explanation of missing not at random data by(Tabachnick & Fidell, 2013)). 20% of participants omitted their anticipated degree classification. Moreover, 21% of participants declined to answer the NS-SEC question relating to their socioeconomic background. Since both SES and degree classification are potentially sensitive topics for the participant, it was probable that their omission was deliberate. The approach to path analysis using Mplus was robust to MNAR, but even so, inferences from the variables were treated with caution.

The Skills Inventory (SI) data also included some zero value scores, whereby on a 100-point (zero to 100) bipolar scale the participant could opt to leave the slider counter at zero indicating 'no skill'. On reflection, this made it impossible to identify missing values as MNAR. However, on inspection, reassuringly items recorded at zero were congruent with skills that a student could conceivably consider themselves as having no

experience, for example having 'awareness of quality control processes'. Therefore, any zero data for transversal skills was therefore counted as a value of zero rather than missing. The 100-point scale could for this reason be problematic and would be reconsidered for future use.

Table 5.3: *Missing Data from Psychological Variables*

Instrument	Total sample cases	No. Missing	% Missing
MAI	8850	64	.7
EBI	5900	29	.5
NGSE	2360	13	.6
WSSE	6490	32	.5

5.3.2 Testing for normality. Assessing normality is a standard analytic procedure based on the assumption that yielded scores situate around the mean. Data which does not follow an anticipated bell curve pattern are considered to be non-normal, with implications for further statistical testing (Field, 2009). The data were normally distributed and met parametric assumptions with no correlation coefficients above 0.9 to indicate multicollinearity. A single exception was found in the MAI item 'I slow down when I encounter important information' (OIM42). This item was excluded from further analysis because of cross-loading below 0.3 together with a failure to load on to any of the factors. The following sections describe the data organised by principles of normality relating to outliers, skew and kurtosis.

Outliers. Outliers are cases detached from the rest of the population, due to either incorrect data entry or extreme values, they indicate the potential for error or that

the participant does not belong to the sample group and can wrongly influence result strength or direction (Tabachnick & Fidell, 2013). The screening results for univariate and multivariate outliers are discussed below.

Univariate. Univariate outliers are participant responses which are considered extreme in value (Field, 2009). The analysis only demanded the screening of SI values, as Likert derived data is not sensitive enough to examine for univariate outliers (see below). One case was identified as an extreme outlier using the composite SI score. Case number 89 recorded an extremely low skill score of 1044, but the participant's MAI, EBI, NGSE and WSSE responses fell within the expected range. Therefore, as recommended by Tabachnick and Fidell (2013), the score was inflated to 1903, one point below the next lowest case.

Also, in consultation with Tabachnick and Fidell (2013), cases identified as having a standardised z-score of above +/- 3.29 were transformed to a single point below the first observed score achieving a value of 3.29 (see Appendix Table C.6, p.388). Although this approach does not necessarily remove the risk of a case being an outlier, it was preferable to removing the entire set of responses from a participant. The defence of this transformation is that, rather than a critique of individual observed scores, the psychometric approach seeks a continuum of low to high scores and as such the transformed scores remain as the lowest scores. On average this procedure related to just three scores per item included in the SI.

Multivariate. Multivariate outliers are participants whose combination of scores across variables are considered unusual (Field, 2009). Mahalanobis distances were calculated using SPSS, scores were converted to p-values (based on the chi-square

distribution), and identified a single outlier (case number 22). On inspection of the variable means, this participant had low knowledge of cognition with high regulation of cognition, and furthermore a high work social-self-efficacy score in combination with low general self-efficacy with an overall lower skill score. The observable pattern of the participant's item scores indicated careless or inattentive responses and, on balance of risk to the data integrity, further analysis omitted the single case.

Skew and kurtosis. Data can also be identified as non-normal using the identifiers of skew and kurtosis, achieved by calculating the difference between collected data and a hypothesised normal distribution (Field, 2009). The researcher identified skew values by using the absolute values of over 3 +/- rule, while kurtosis used the guideline of an absolute value of under 10.0 (Kline, 2005). All individual items, except DK46 within the MAI, demonstrated a kurtosis value under the value of 10.0 (see Table 5.4, p.139). DK46 related to the item 'I learn more when I am interested in the topic' and showed a skew of 3.4 and kurtosis of 14.67. 84% of participants selected the maximum value of 'always true', and so the item was removed from further analysis for failing to represent differences in behaviour.

Table 5.4: *Normality Tests*

	M	*SD*	Skewness	Kurtosis
MAI	109.15	15.93	.02	.31
EBI	67.84	9.30	-.07	-.11
WSSE	66.33	13.67	-.45	.32
NGSE	29.10	6.37	-.68	.25
SI	1824.16	283.39	-.05	-.29
Work Experience	5.67	2.14	-.42	.11
Careers Guidance	9.60	2.86	.09	-.95

5.4.0 Reliability

Key quality criteria for psychometric testing are reliability and validity. The thesis consulted several guidelines to maximise the reliability and validity of the research findings, mainly Kline (2000), Furr and Bacharach (2013) and Rattray and Jones (2007). Before conducting path analysis, the following section briefly outlines issues relating to factor analysis.

Study 1 used factor analysis on the collected data. Using factor analysis results in groupings of numerical data, which then allow for order and measurement (Kline, 2000). The technique works on the principle that clusters of 'like' scores from items correlate together; the resulting groupings provide evidence that items within a scale relate to that factor and not to another factor. The advantage being that lived experience can be understood as groups of numbers which flow together, or apart, and from which inferences about the characteristics of that lived experience can be made. Although each item is considered to capture the phenomenon, a group of items protects against

Table 5.5: *Descriptive Statistics and Reliability*

Instrument	Items	N	Min.	Max.	Mean	SD	α	AVE	CR
MAI	31	294	64	154	109.15	15.93	.79	.50	1.00
Knowledge of Cognition	11	294	18	55	39.63	6.38	.87	.31	.99
Regulation of Cognition	20	294	34	99	69.52	11.45	.89	.31	.99
NGSE	8	294	8	40	29.10	6.37	.92	.67	1.00
WSSE	19	294	21	95	66.33	13.67	.93	.57	1.00
Social Gathering	6	294	8	35	26.76	5.97	.90	.60	.97
Performance in Public	5	294	5	25	15.90	5.08	.90	.67	.99
Conflict	5	294	5	25	16.23	4.03	.78	.42	.98
Seeking and Giving Help	3	294	2	10	7.44	1.91	.70	.58	.98
EBI	3	294	40	94	67.84	9.30	.71	.64	1.00
Omniscient Authority	3	294	3	15	8.75	2.43	.65	.40	.95
Certain Knowledge	3	294	3	15	11.04	2.11	.44	.22	.93
Quick Learning	3	294	6	20	15.52	2.92	.57	.32	.87
Simple Knowledge	3	294	7	20	13.63	2.88	.63	.43	.80
Innate Knowledge	3	294	7	29	18.90	4.27	.53	.22	.92
SI	25	294	1034	2500	1824.16	283.39	.91	.78	1.00
Communication	5	294	104	500	369	74.76	.77	.43	.93
Commercial Awareness	4	294	24	400	245.88	75.71	.76	.46	.97
Project Awareness	9	294	309	900	666.88	111.76	.84	.40	.99
Technical Awareness	3	294	60	300	232.04	50.33	.74	.52	.99
Ethical Awareness	4	294	103	300	226.88	44.66	.62	.32	.95
Work Experience	3	294	0	9	5.67	2.14	-	-	-
Career Guidance	5	294	5	15	9.60	2.86	-	-	-
Degree Classification*	-	234	1	4	3.03	.68	-	-	-

Note: α = Cronbach's Alpha, AVE = Average Variance Explained, CR = Composite Reliability, *

Anticipated

the risk of bias, misinterpretation, and resulting measurement error. For example, if people are asked to rate themselves as good or poor at planning, the people who score 'good' should reflect sameness within-group, but also be differentiated from those in the 'poor' group. This point also illustrates a philosophical contrast with qualitative research, where it may be possible to be both good and poor. The quantitative response to this dilemma is to construct a further grouping possibility, for example, that of a potentially (statistically) impoverished in-between position.

Factor analysis is a statistical activity undertaken as data reduction. The overall purpose is to explain the maximum amount of variance over the fewest latent variables (Henson & Roberts, 2006). Factor analysis is interpretative, relying on reflective judgements and decisions made by the researcher within statistical boundaries (Schumacker & Lomax, 2004). The development of technology and software has facilitated more sophisticated and demanding data analysis. There are several forms of factor analysis, but in practice, most frequently used are exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). When designing an instrument, EFA is often conducted first, using questions which are informed by a theoretical approach, but the research may not be sure which questions correlate together. In contrast, CFA operates to test results against a previously evidenced instrument or theoretical framework. This work confirms the integrity of the instrument and allows for the calculation of composite scores for further analysis.

Using good-practice guidelines for path analysis, CFA was used to explore the factorial structure the MAI, NGSE, WSSE, EBI, and SI. Cronbach's Alpha α measured how well items group together, with values greater than .70 indicating internal consistency (Cronbach, 1951). Also, average variance extracted (AVE) compared the variance with the calculated measurement error, seeking values of >.5, and composite

Table 5.6: *Goodness-of-Fit Indices for the NGSE, WSSE, EBI and SI*

Instrument	Factors	χ^2	*df*	TLI	CFI	RMSEA	SRMR
NGSE	1	35.68	20	.98	.99	.05	.02
WSSE	4	406.61	166	.90	.92	.07	.08
EBI	4	144.74	85	.88	.90	.05	.06
SI	5	541.23	265	.84	.86	.06	.06

Note: χ^2 = Chi-Square, *df* = degrees of freedom, TLI = Tucker-Lewis Index, CFI = Comparative Fit Index, RMSEA = Root Mean Squared Error of Approximation, SRMR Weighted Root Mean Square Residual

reliability (CR) evaluated how different items are from other factors, recommending values >.7 as adequate (Fornell & Larcker, 1981). With the exception of the MAI (see below), Study 1 used Mplus Maximum Likelihood Robust (MLR) estimator with geomin rotated solution, estimating goodness of fit via the following indices: The Tucker-Lewis Index (TLI; values of >.90); Comparative Fit Index (CFI; values of >.90); the Root-Mean-Square Residual (RMSEA; values of <.07); and the Root Square Error of Approximation (SRMR; values of <.08) (Hooper, Coughlan, & Mullen, 2008; Schumacker & Lomax, 2004; Tabachnick & Fidell, 2013). Table 5.5 (p.140) displays the descriptive and reliability statistics computed for the data.

5.4.1 MAI: Metacognitive Awareness Inventory. The MAI is a 52-item 2-factor instrument of metacognitive awareness, incorporating Knowledge of Cognition (KnowCog) and Regulation of Cognition (RegCog) (Schraw & Dennison, 1994). See Appendix Table C.2 (p.393) for factor loadings and reliability scores. CFA using the data from Study 1 is described below.

Schraw and Dennison (1994) initially sought to identify factors corresponding to eight theorised subscales of metacognition, but were unable to provide empirical support for these. Study 1 also initially sought to confirm this eight-factor structure using CFA because it is well used in the literature base. However, the data did not demonstrate adequate goodness-of-fit. Other literature supported these problematic findings. Teo and Lee (2012) on encountering difficulties with both eight and two-factor solutions, reconstructed the scale as a three-factor model of Conditional Knowledge, Strategic Knowledge and Procedural Knowledge. Study 1 also tested a 3-factor structure, but items did not load onto the factors to support this model.

To explore the structure Study 1 identified that several items failed to load sufficiently onto any factor, and eighteen items were removed from the scale, resulting in a shortened thirty-one item 2-factor instrument. Although this practice is not ideal, it is noted that Schraw and Dennison's (1994) paper also removed items (although specific items are not listed). In support of the theoretical conceptualisation of metacognition, factors of 'Knowledge of Cognition' and 'Regulation of Cognition' showed a strong positive correlation, $r(292)=.56$, $p< .01$. Furthermore, Mplus identified the factors as having high cross-loading, indicating that they are too alike, yet not alike enough for a one-factor model. A solution was found where factor one (KnowCog) regressed upon Factor 2 (RegCog) supporting the theoretical proposition that knowledge occurs before regulation. The resulting goodness-of-fit indices are shown in Table C.9 (p.392), the Comparative Fit Index (.91) and Tucker-Lewis Index values (.91) were calculated as adequate, in addition to a good RMSEA (0.05). Cronbach's Alpha α .89 calculated reliability as good, with an overall AVE value reaching adequacy at .5. Therefore, the model is an adequate fit, although the results should be treated with some caution, and it should be kept in mind that a more complex model may be a better fit for the data.

5.4.2 NGSE and WSSE: Self-Efficacy. Study 1 included two instruments of self-efficacy, namely the NGSE and WSSE. CFA conducted on the data is described below.

The NGSE is an 8-item one-factor instrument of general self-efficacy. Validated by Chen et al. (2001), the instrument is well used within the psychology field. Using CFA in Study 1, all eight statements loaded onto the factor above the critical .5 value. The overall reliability of the NGSE was measured as excellent, with a Cronbach's alpha value of α .90 and AVE of .6. This value was considered comparable to Chen et al.'s (2001) values of α .85-.88 conducted with a similar population. The CFA yielded a good model fit, see Table 5.6, p.142). Factor loadings and associated reliability values are displayed in Appendix Table C.10 (p.392).

The WSSE is a 22-item four-factor instrument of workplace social self-efficacy. Validated by Fan et al. (2013), the instrument is newly developed and so any opportunity to explore the psychometric properties is considered valuable. All 22 items loaded onto their respective factors above the critical value of .5, see Appendix Table C.2 (p.394). The CFA yielded an acceptable model fit, see Table 5.6 (p.142). The overall reliability of the WSSE was demonstrated as excellent, with a Cronbach's alpha value of α .93 and AVE of .55. This value was identical to Fan et al.'s (2013) value of α .93. The analysis confirmed a strong positive relationship between the two instruments of self-efficacy, NGSE and WSSE, $r(292)=.49$, $p< .01$. So these instruments were also considered suitable for use within Study 1.

5.4.3 EBI: Epistemological Beliefs Inventory. The EBI is a 28-item five-factor instrument of epistemological-belief. Five items required reverse transformation, although the scale operated in reverse to the other instruments and so for ease of interpretation, all scores, except the reversed items, were re-coded resulting in a lower

to higher scale. The EBI has 28-items but Schraw et al. (2002) only found satisfactory loading values for a shorter scale. In response, Study 1 performed CFA on the 15-item five-factor instrument with the sub-scales of Omniscient Authority, Certain Knowledge, Quick Learning, Simple Knowledge, and Innate Ability. All but two items loaded onto their corresponding factor above the critical value of .5, although it is notable that Schraw et al. (2002) used a threshold of >.3. Goodness-of-fit indices however yielded only adequate support, see Table 5.6 (p.142). The overall reliability of the EBI was adequate, with a Cronbach's alpha value of α .71 and AVE of .68. Therefore, none of the subscales reached the threshold reliability value for Cronbach's alpha or AVE, although again the values were comparable to those in the original paper. Factor loadings and associated reliability values are displayed in Appendix Table C.2 (p.395). It is also noteworthy, that while not reaching significance, several EBI subscales yielded correlation coefficients in a negative direction, these results would impact on the lower than desirable factor loading and Cronbach's Alpha values. Thus while the instrument was acceptable for use the results were treated with caution.

5.4.4 SI: Skills Inventory. Study 1 developed a 25-item skills inventory (SI), organised within a priori structure of five anticipated awarenesses: Communication, Project, Commercial, Technology, and Ethics. As described in Section 5.2.6 (p.124), forty-one items which represent the graduate skills desired by employers were thematically organised. The analysis sought evidence for using the proposed five-factor model as a framework and guidelines by Tabachnick and Fidell (2013) were consulted before running CFA within the context of a priori structure.

As the first stage of analysis, using the Kaiser (1960) eigenvalues greater than 1 rule, the analysis suggested ten factors accounting for a total variance of 64%. However,

visual inspection of the scree plots showed more support for fewer factors, (see Cattell, 1966), with distinct points of inflexion at two and three factors and a less marked inclement at five (see Appendix Figure C.1, p.389). Parallel analysis was performed allowing comparison of the extracted eigenvalues to a randomly generated data set (O'Connor, 2000). The results of this supported the proposed priori model including five factors (see Appendix Table C.7, p.389).

Having established the potential of a five-factor model, a priori-structure guided CFA. This analysis identified nine items as suitable for removal, as they failed to load onto any factor above the recommended value of >.5. A further six items were removed since they failed to load onto any factor which made theoretical sense, and a single item because it loaded equally onto two factors. Therefore, with sixteen items removed, the SI was finalised as a 25-item instrument (see Appendix Table C.2, p.396). Goodness-of-fit indices demonstrated adequate support, see Table 5.6 (p.142): TLI = .84, CFI = .86, RMSEA = .06, SRMR = .06. The reliability of the SI measured as excellent, with a Cronbach's alpha value of α .9 and AVE of .78. The subscale reliability was calculated with all factors exceeding the critical adequacy value of α .70, except the Ethical Awareness subscale with α .6.

In summary, this chapter has evaluated the underlying reliability of the instruments which measure SRL and transversal skills. Factor analysis showed that the goodness-of-fit for the MAI, NGSE, WSSE, EBI and SI met the criteria for the calculation of composite scores. The following section now outlines the descriptive and inferential statistics, concluding with a path analysis.

5.5.0 Results

Study 1 hypothesised that a student's self-regulated learning (SRL) status could predict their engagement with employability capitals. The relative contribution of SRL to variables relating to employability was tested against a priori model using path analysis, as illustrated earlier by Figure 5.1, (p.111). The diagram maps Schraw et al.'s (2006) model of SRL as a latent variable from the observed variables of metacognition, self-efficacy and epistemological belief. Together these variables represent a students' SRL status. Student engagement with employability is also mapped via the capitals of academic study, work experience, careers guidance, and transversal skills. Study 1 also used a variety of statistical tests, including correlations and t-tests, in response to the generated sub-hypotheses for each predicted relationship.

The next section begins by outlining correlations between the variables relating to SRL and then variables relating to employability. These results are to explore the suitability of mapping the variables together in the path analysis. Then the path analysis and associated statistical tests responding to the main hypotheses are described, organised by academic study, work experience, careers guidance, and transversal skills. Finally, results relating to demographic stratification of the data are explored.

5.5.1 Correlations between the variables.. As a first-step of path analysis, the analysis calculated the correlations between the variables of metacognition, self-efficacy, and epistemological belief, theorised to operate together as SRL. Table 5.7 (p.149) displays a summary of the main results, while Appendix Table C.12 (p.398) expands to include the subscales. The results are outlined below.

Measuring self-regulated learning.

Pearson product-moment correlation coefficients explored the suitability for the MAI, EBI, and NGSE to be a single latent variable in path analysis. Metacognition was shown to correlate with self-efficacy, using the NGSE, r (294) = .51, p< .01, and WSSE, r(292)=.32, p< .01. The analysis also showed significant, but weak, relationships between metacognition and epistemological belief, r(294)=.10, p< .05, and self-efficacy and epistemological belief, r(294)=.12, p<.05. Together these results supported the prediction that these variables operate together in ways that support findings in the SRL literature base, with a caveat that, on the basis of low correlation values and reliability scores, further questions are opened up about the role of epistemological belief status. Thus, justifying further analysis, correlation analysis showed that the variables of metacognition, self-efficacy, and epistemological belief were influential to each other.

Measuring employability capital.

Study 1 also needed a means of capturing engagement with employability capital. Pearson product-moment correlation coefficients demonstrated a significant positive, though weak, relationship between engagement with academic study and the transversal skills valued by employers, r(292)=.15, p< .05. There was also a significant (but weak) correlation between academic study and engagement with work experience, r(292)=.15, p< .05). Also, when splitting the grade data by low (below a 2:1) and high (2:1 and above), there was no significant difference in engagement with non-graduate or graduate work experience. Careers guidance was related to transversal skills and work experience, but there was no support for a relationship between academic grade and careers guidance, r(292)=.0.1, p> .05.

Table 5.7: *Means, Standard Deviations, and Correlation Matrix (N = 294)*

		Mean	SD	1	2	3	4	5	6	7	8
1	MAI	109.15	15.93								
2	NGSE	29.10	6.37	.51**							
3	WSSE	66.33	13.67	.32**	.49**						
4	EBI	67.84	9.3	.10*	.12*	.11*					
5	SI	1824.16	283.39	.45**	.40**	.47**	.07				
6	Work Experience	5.67	2.14	.07	.11*	.17**	.12*	.22**			
7	Career Guidance	9.60	2.86	.19**	.16**	.1	.09	.21**	.30**		
8	Academic Study	3.03	.68	.23**	.27**	.09	.13*	.15**	.15*	.10	1

Note: *=$p<.05$, **=$p<.01$. MAI=Metacognition, NGSE=General Self-Efficacy, WSSE=Workplace Self-Efficacy, EBI=Epistemological Belief, SI=Skills Inventory

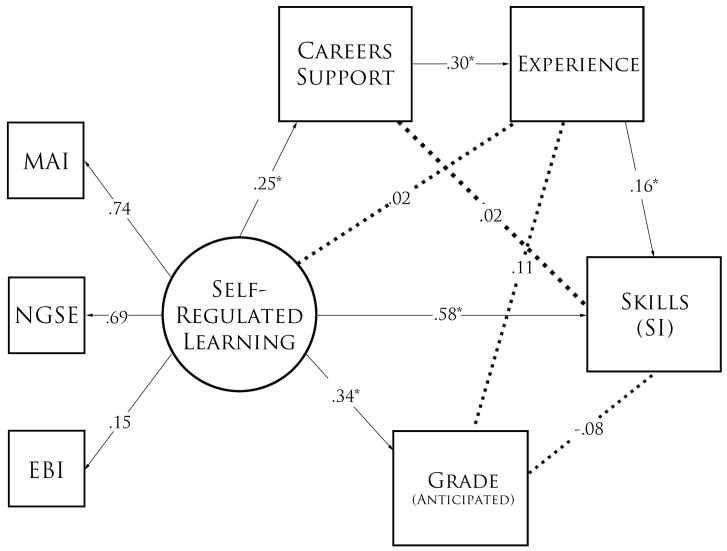


Figure 5.9: *Model of Relationships Across SRL and Employability*

Diagram Key: Boxes to indicate observed variables and circles for latent variables. Blocked lines in the diagram represent expected or evidenced relationships. Arrowheads show the direction of tested relationships. Moreover, dotted lines show tested non-significant paths.

5.5.2 Path analysis. There are several market leaders of software to conduct path analysis; Study 1 used Mplus Version 7.31 with Maximum likelihood estimation (ML) and geomin rotation (Muthén, 1998-2015). The adequacy of model fit was assessed using indices recommended by Schumacker and Lomax (2004).

Figure 5.9 (p.150) shows the standardised path coefficient estimates between SRL (MAI, EBI and NGSE) and employability capitals (anticipated degree classification, work experience, careers guidance, and SI). The hypothesized model of employability was identified; this means that the suggested model was considered a 'good fit' for the data collected by Study 1. Initially, a saturated model with all possible paths computed indicated a good fit: $\chi^2(9, n=294)=9.92, p=.65$; Root Mean Square Error of Approximation (RMSEA)=.00; the Comparative Fit Index CFI=1.00; Tucker-Lewis Index (TLI)=1.00; Standardized root mean square residual SRMR=.03.

Path analysis is an iterative process, whereby model pathways are removed to achieve the best possible fit across the data and model. The rationale of Study 1 is that students who engage with employability will be directing their learning towards all of the employability capitals. But in Study 1, on completion of alterations to the model, the best fit was found by removing the predicted pathway between careers guidance and academic performance. Such a finding builds on the earlier reported weak correlations between academic study and the broader employability capitals, and further indicated that there are important mediating factors to understand about the employability capitals. For example, whether the relationship between academic performance and careers guidance is mediated by student willingness to conform to archetypal expressions of employability, whereby engaged academic learners may adhere to learner identities but resist broader employability engagement. The rationale for this approach was because this pathway did not form a part of the hypothesised relationships in Study 1, but also because such issues would be explored through interrogation of the employability capitals in Study 2 and 3.

A good fit for the specified model was confirmed with the indices of $\chi^2(12, n=294)=9.89$, $p>.05$; Root Mean Square Error of Approximation (RMSEA)=.00; the Comparative Fit Index CFI=1.00; Tucker-Lewis Index (TLI)=1.00; Standardized root mean square residual SRMR=.03. Bias-corrected bootstrap was calculated using 10000 drawn samples, which is good practice when calculating indirect effects (Schumacker & Lomax, 2004; Tabachnick & Fidell, 2013). Total variance explained for skill status (SI) was 39 %, considered robust within measures of human behaviour. However, other variables indicated a weaker linear relationship: 11 % work experience, 6 % of careers guidance, and 12 % of anticipated grade. Having established the model, the next section reports the path analysis results organised by the employability capitals of academic

study, work experience, careers guidance, and transversal skills.

- Hypothesis H1: A students' SRL status will have a direct effect on their anticipated degree classification.
- Hypothesis H2: A students' SRL status will have a direct effect on their engagement with work experience.
- Hypothesis H3: A students' SRL status will have a direct effect on their engagement with careers guidance.
- Hypothesis H4: A students' SRL status will have a direct effect on their level of skills.

Academic Study. Study 1 recorded the participants' anticipated degree classification as a proxy value for their engagement with academic study. The results show a continuum of expected performance with 66% of participants anticipating a degree classification of 2:1 and above. The results relating to sub-hypothesis H1a-H1d are reported below:

- Hypothesis H1: A students' SRL status will have a direct effect on their anticipated degree classification.
  - H1a: A students' self-regulated learning status will effect skills level indirectly, via its effect on their anticipated degree classification.
  - H1b: Metacognition will be positively correlated with degree classification (anticipated).
  - H1c: Self-efficacy will be positively correlated with degree classification (anticipated).

- H1d: Epistemological Belief will be positively correlated with degree classification (anticipated).

Testing Hypothesis 1: In the first hypothesis, it was predicted that SRL would have a direct positive effect on degree classification. Path analysis showed a moderate associated between SRL and degree classification (H1), $\beta = .34$, $p<.05$. Therefore, hypothesis H1 was accepted. There was no support shown for an indirect relationship on skills via SRL's effect on academic study (H1a), thus the hypothesis was rejected.

A series of sub-hypotheses also explored the relationships between academic engagement and SRL. The results supported H1b, showing that a students' predicted degree classification is positively related to metacognition, $r(292)=.23$ $p< .01$. One-way ANOVAs explored the findings with some notable results. There was a significant difference between anticipated grade and the MAI, $F(3, 231)= 5.91$, $p = .001$. A Hochberg GT2 post hoc test, selected as robust with uneven sample sizes, showed that students anticipating a first-class degree reported a significantly higher metacognitive score than the 2:1 and 2:2 groups. Appendix table C.13 (p.399) displays the full results.

The results also supported H1c, showing that a student's predicted degree classification is positively related to general self-efficacy, $r(292)=.27$, $p< .01$. In addition, NGSE scores evidenced that students in the 1st class category were significantly more likely to have higher self-efficacy than the other grade classifications, $F(3,230)= 8.02$, $p = .001$. However, interestingly, there was no support shown for a relationship between academic study and workplace social self-efficacy, $r(292)=.10$, $p> .05$, although inspection of the subscales showed that academic grade was related to self-efficacy in 'Performance and Conflict' scenarios, but not 'Seeking Help' and 'Social Gathering'. Appendix Table C.13 (p.399) displays the results in detail.

The results also supported H1d, showing that a students' predicted degree classification is positively related to epistemological belief, $r(292)=.13$, $p< .05$ (H1d). This result was contributed to mainly by the 'Quick Learning' and 'Simple Knowledge' subscales.

Work Experience. Study 1 captured work experience engagement through questions relating to 'non-graduate', 'graduate', and 'groups, clubs, and societies'. Three questions relating to work experience generated a composite score (M=5.67, SD=2.14, Range 0-9) intended to capture students' engagement with activities outside of their degree (see the rationale in Section 5.2.6, p.124). In support of treating the three forms of work experience as a composite score, Chi-square tests calculated whether engagement with 'non-graduate' work experience is independent of the other categorical variables: no significant association was shown. An exception was that participants with no 'non-graduate' work experience were also more likely, by an odds ratio of 2.47, to have low engagement in groups, clubs and societies, $\chi^2(1, N=293)=5.34$, $p=.02$. Appendix Table C.18 (p.404 displays the results.

Figure 5.10 (p.155) displays the yielded scores for 'non-graduate' type work experience, graduate type, and also groups, clubs and societies, organised into the categories of no engagement, short, or extensive engagement. The data demonstrated that 88% of participants had experience of 'non-graduate' type student work and 30% having 'graduate' roles. The job titles provided by participants in Study 1 are thematically organised in Figures 5.11a and 5.11b on page 155. The results relating to main hypothesis H2 and sub-hypothesis H2a-H2d are reported over the page:

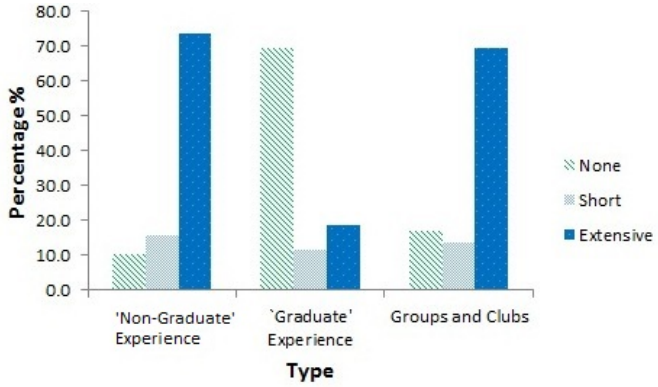
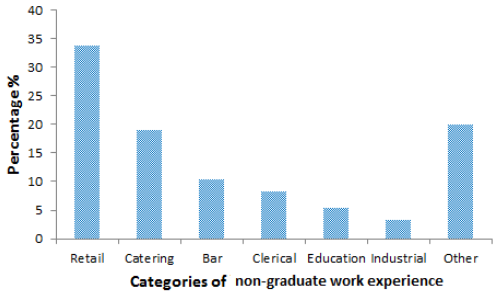
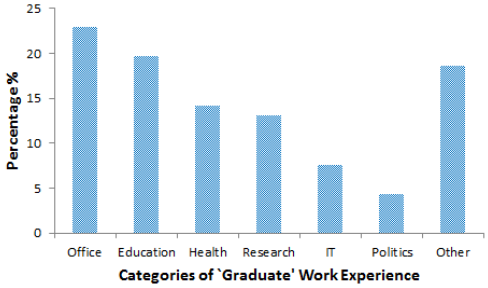


Figure 5.10: *Bar Chart Showing Engagement with Work Experience*



(a) *Non-Graduate Experience*



(b) *'Graduate' Experience*

Work Experience: Main and Sub Hypotheses

- H2: A students' SRL status will have a direct effect on their engagement with work experience.
  - H2a: A students' self-regulated learning status will effect skills level indirectly, via its effects on engagement with work experience.
  - H2b: Metacognition will be positively correlated with work experience.
  - H2c: Self-efficacy will be positively correlated with work experience.
  - H2d: Epistemological Belief status will be positively correlated with work experience.

Testing Hypothesis 2: In the second main hypothesis, it was predicted that SRL would have a direct positive effect on engagement with work experience. In contrast to

what was predicted, no significant support was shown for SRL's predicted relationship with engagement with work experience, (H2), $\beta = .02$, $p>.05$. There was also no support shown for an indirect relationship between skills via SRL's effect on academic work experience. Therefore, hypotheses H2 and H2a were rejected.

A series of sub-hypotheses explored the relationships between SRL and engagement with work experience. In contrast to the prediction in H2c, there was no relationship between metacognitive status and work experience, $r(292)=.07$, $p> .05$. However, the analysis showed significant though weak, support for a relationship between self-efficacy and work experience (H2c) (NGSE), $r(292)=.11$, $p< .05$, and (WSSE), $r(292)=.17$, $p< .01$, and epistemological belief (H2d), $r(292)=.12$, $p< .05$.(see Table 5.7, p.149).

To tease out some of these complexities, using a median work experience score of six, the data were split into two categories representing low and high engagement. T-tests explored the differences between the variables, see Appendix Table C.21 (p.407). Students with low engagement with work experience (M=1748.41, SD=267.34) were significantly less likely than high-engagement students (M=1873.53, SD=283.35) to report overall higher SI scores in comparison to their peers, $t(116,178)=-3.78$, $p<0.01$, d=0.45.

No significant results for work experience were shown across the psychological variables of the MAI, EBI, WSSE or NGSE. However, when split by sub-scales, students with low work experience engagement (M=13.07, SD=3.08) were significantly more likely than high engagement students (M=13.99, SD=2.69) to report that knowledge is 'simple to gain', $t(116,178)=-2.61$, $p<.01$, d=0.32. In addition, students with low work experience engagement (M=14.87, SD=5.01) were significantly less likely than high-engagement students (M=16.58, SD=5.03) to have self-efficacy relating

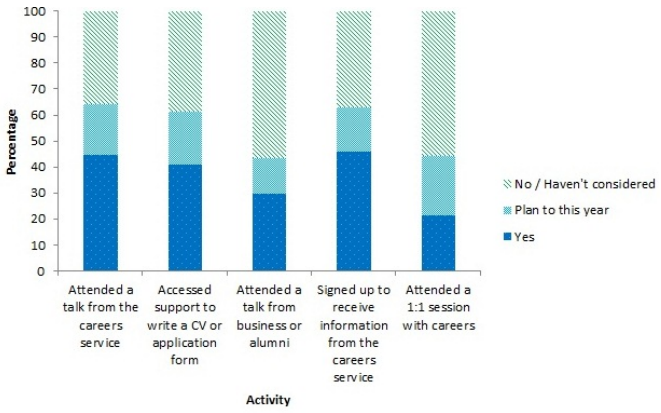


Figure 5.12: *Bar Chart Showing Engagement with Careers Guidance*

to their ability to perform in work context, $t(116{,}178)=-2.86$, $p<0.01$, $d=0.34$.

Careers Guidance. Five questions relating to engagement with careers guidance were included in Study 1, generating a composite score ($M=9.60$, $SD=2.86$, Range= 5-15). Figure 5.12 (p.157) illustrates that the 'attending 1:1 career session' item was the activity least engaged with. In contrast, the 'signing up to receive information' scored the highest. Since students frequently engage with the careers service within their core modules, and most (60%) reported no engagement, responses were interpreted to mean direct contact outside of embedded activities. The results relating to main hypothesis H3 and sub-hypothesis H3a-H3d are reported below:

- H3: A students' SRL status will have a direct effect on their engagement with careers guidance.
  - H3a: A students' self-regulated learning status will effect skills level indirectly, via its effects on engagement with careers guidance.
  - H3b: Metacognition (MAI) will be positively correlated to careers guidance.
  - H3c: Self-efficacy (NGSE and WSSE) will be positively correlated with careers guidance.

- H3d: Epistemological Belief status (EBI) will be positively correlated with careers guidance.

Testing Hypothesis 3: In the third main hypothesis it was predicted that SRL would have a direct positive effect on engagement with careers guidance. Path analysis showed a moderate association between SRL and the careers guidance variable (H3), $\beta = .25$, $p<.05$. Therefore, hypothesis H3 was accepted. There was no support shown for an indirect relationship on skills via SRL's effect on careers guidance (H3a), and therefore the hypothesis was rejected. There was, however, a significant (though weak) indirect path shown for a relationship that had not been hypothesised, that careers guidance would positively impact a student's skills status, via its effect on engagement with work experience, $\beta = .01$, $p<.05$.

A series of sub-hypotheses explored the relationships between SRL and engagement with careers guidance. The results showed a significant, although weak relationship between metacognition and engagement with careers guidance (H3b), $r(292)= .19$, $p < .01$. A positive, but weak, relationship was also shown between the NGSE and engagement with careers guidance, $r(292)=.16$, $p< .01$, but not for the WSSE, $r(292)=.09$, $p> .05$ (H3c). Observation of the subscales identified that 'performance in public contexts' was the only factor of workplace social self-efficacy related to careers guidance. The relationship between epistemological belief and careers guidance was non-significant, $r(292)=.09$, $p> .05$ (H3d).

Finally, based upon the median score of 9, the values were transformed into two groups representing 'No Engagement' and 'Engagement' (50% of the sample respectively). Chi-square tests were performed to consider whether careers guidance is independent from other categorical variables, see Appendix Table C.20 (p.406).

No significant relationship was shown for gender, non-graduate work experience, degree classification or variables relating to SES. However, significant results were demonstrated for engagement with graduate experience and groups, clubs and societies. When students' had graduate type work experience, most would also engage in careers activity. While, for those without graduate experience, most would not, χ^2 (1, N=294) =9.87, p<.05: the odds ratio of students engaging with careers activities was 2.26 times higher if they had also engaged in graduate work experience. In addition, a significant value was also shown for engagement in career activity together with groups, clubs and societies, χ^2 (1, N=294) =7.23, p<.05, with an odds ratio of 2.4:1. However, on inspection of the standard residuals, no values exceeded the critical value of 1.96. Therefore, although the results indicate that students who do not engage in careers guidance are also more likely not to participate in 'groups, clubs, and societies' at an odds ratio 2.39, this result should be treated with caution.

Transversal Skills. The Skills Inventory (SI) captured transversal skills status representing five categories of 'communication', 'commercial', 'project', 'technical', and 'ethical skills'. Overall, these categories were shown to be strongly related, providing support for a general skill status as measured by the SI. The highest scoring transversal skill was 'using the internet to find information'. The lowest scoring transversal skill was 'awareness of profitability'. The five highest and lowest recorded transversal skills are shown in Table 5.9 (p.162). A complete list of transversal skill scores is shown in Appendix Table C.11 (p.397). The results relating to main hypothesis H4 and sub-hypothesis H4a-H4c are reported below:

- H4: A students' SRL status will have a direct effect on their level of transversal skills.

- H4a: Metacognition (MAI) will be positively correlated with transversal skills (SI).
- H4b: Self-efficacy (NGSE and WSSE) will be positively correlated with transversal skills (SI).
- H4c: Epistemological Belief status (EBI) will be positively correlated with transversal skills (SI).

Testing Hypothesis 4: Hypothesis 4 predicted that a student's SRL status would have a direct effect on their level of transversal skills. Path analysis showed a large association between SRL and transversal skills (H4), $\beta = .58$, $p<.05$. Therefore, hypothesis H4 was accepted.

A series of sub-hypotheses explored the relationships between SRL and engagement with careers guidance. Moderate positive correlations were shown between metacognition and transversal skills (H4a), $r(292)=.45$, $p<.01$. Metacognition was most related to the subscale of 'project', $r(292)=.46$, $p< .01$, and the weakest with 'technical', $r(292)=.20$, $p< .01$. Therefore, hypothesis H4a was accepted.

Moderate positive relationships were also demonstrated between the transversal skills and general self-efficacy, $r(292)=.40$, $p< .01$ (H4b): A particularly strong result was shown for the transversal skills subscale of 'communication', $r(292)=.60$, $p< .01$. These findings were repeated with workplace social self-efficacy using the WSSE, $r(292)=.47$, $p< .01$ (H4b). Therefore, hypothesis H4b was accepted. However, analysis showed no evidence of a relationship between epistemological belief and transversal skills, $r(292)=.07$, $p> .05$ (H4c); except for with the 'project' sub-scale, $r(292)=.10$, $p< .05$. Therefore, hypothesis H4c was rejected.

As a final test, these results were confirmed through splitting the sample into low

and high transversal skill score groups: achieved by splitting the data set by the SI median value of 1807 using guidance from Tabachnick and Fidell (2013). Table 5.8 (p.161) displays the results. A significant difference was shown between how participants with high and low skills interact with metacognition and self-efficacy, but not epistemological belief. Metacognition and self-efficacy results show particularly large Cohen's effect sizes; this indicates a substantial difference in how students with lower or higher SI scores interact with the psychological variables.

Table 5.8: *T-tests by High and Low Transversal Skill Score*

	Low SI			High SI			95% CI**			
	M	*SD*	n	*M*	*SD*	n		t	df	d
MAI	103.47	13.83	147	114.83	15.91	147	-14.78,-7.94	-6.54*	292	.76
NGSE	26.81	6.23	147	31.38	5.66	147	-5.94,-3.20	-6.58*	292	.76
WSSE	60.56	13.51	147	72.10	11.20	147	-14.39,-8.69	-7.97*	292	.92
EBI	67.17	9.51	147	68.50	9.08	147	-3.47,.80	-1.23	292	-
Work	5.20	2.12	147	6.14	2.05	147	-1.42,-46	-3.86*	292	.45
Experience										
Career Guidance	9.08	2.69	147	10.11	2.95	147	-1.67,-.38	-3.11*	292	.36
Degree Class..	2.06	.64	110	1.89	.70	124	.03-.35	2.00*	232	.85

Note: *p<.05., ** CI =Confidence Interval on the Mean Difference

5.5.3 Demographic stratification. Study 1 also collected demographic information which allowed the stratification by gender, SES, and year group. As a final phase of the analysis, this section reports the results according to demographic information.

Gender was explored through t-tests to explore differences split by female and male participants. The main results are shown in Table 5.11 (p.165), while the full results

Table 5.9: *Five Highest Self-Rated Skills*

Skill	Mean
Using the internet to find information	89.00
Being friendly	87.05
Working on your own	84.92
Using word processing software (i.e. Word or similar)	84.75
Finishing jobs to completion	83.74

Table 5.10: *Five Lowest Rated Self-Rated Skills*

Skill	Mean
Being creative about problems	68.44
Using database software (i.e. Excel or similar)	65.91
Awareness of risk management	63.86
Awareness of quality control processes	61.40
Awareness of profitability (Budget management, sales forecasts etc.)	51.21

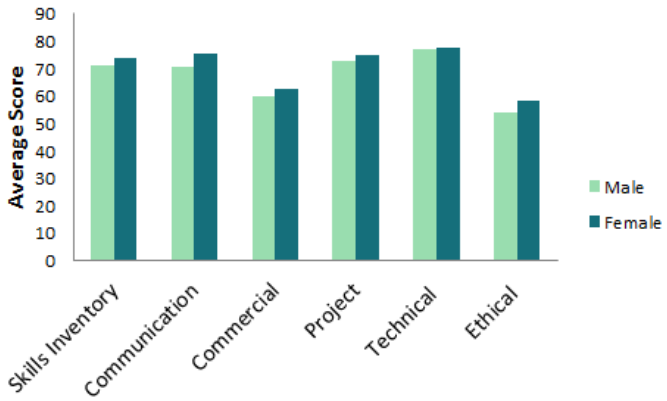


Figure 5.13: *Bar Chart Showing Skill Status by Gender*

are shown in Appendix Table C.14 (p.400). Analysis showed no significant difference in metacognitive status between males and females. However, a significant difference was found for general self-efficacy using the NGSE, $t(103,191)=-2.31$, $p<.01$, $d=.28$: this is a moderate effect with women ($M=28.47$, $SD=6.22$) reporting lower overall scores than men ($M=30.26$, $SD=6.51$). While no significant difference was shown for workplace social self-efficacy overall, women scored lower for the subscales of 'performance in public contexts' and 'conflict resolution'. Finally, while no significant difference was found for the EBI overall, gender stratification provided evidence that men ($M=18.51$, $SD=4.41$) yielded significantly lower scores than women ($M=19.11$, $SD=4.19$), $t(103,191)=-2.48$, $p<.01$, $d=.10$ on the 'simple knowledge' subscale. Finally, males were shown to be significantly less likely to have engaged in graduate-type experience, $\chi^2(1, N=293)=7.09$, $p=.01$, at an odds ratio of 2:1, although, caution is applied as it does not meet the critical value of 1.96. Support was also shown for a gender difference in interactions with transversal skills. Figure 5.13 (p.162) illustrated a moderate gender difference for the skills valued by employers, $t(103,191)=-2.15$, $p<.01$, $d=.26$: men ($M=1776.08$, $SD=278.95$) scored significantly lower scores than women ($M=1850.09$, $SD=283.09$).

Study 1 also collected data relating to the student's year of study. One-Way ANOVA demonstrated no significant differences across all SRL variables and the student's year of study, as displayed in Appendix Table C.16, (p.402). There were however several differences across the employability capitals: There was a significant difference between year of study and engagement with work experience, $F(2,289)=5.91$, $p<.05$ (see Appendix Table C.16, p.402). A Hochberg GT2 post hoc test evidenced, as might be anticipated, that the longer students had attended university, the more likely they were to engage in some form of work experience. Also, older participants, those aged

22-30, were more likely than their younger peers to engage in graduate-type experience (see Table C.19, p.405). There was also a significant difference between Year of Study and engagement with Careers Guidance, $F(2,289)=18.81$, $p<.05$. A Hochberg GT2 post hoc test evidenced, as might be anticipated that the longer students had attended university, the more likely they were to engage in careers guidance.

Study 1 also collected data relating to the student's socioeconomic background. One-Way ANOVA demonstrated no significant differences between SES and the other variables, as displayed in Appendix Table C.15 (p.401). However, analysis of the SES supplementary questions showed that those from the higher SES category were significantly more likely to have a parent with a degree, $\chi^2(1, N=233)=16.25$, $p<.05$). Moreover, although there was no significant difference across SES and whether friends and family had previously arranged work experience, $\chi^2(1, N=233)=.21$, $p>.05$, students from a lower SES background were significantly less likely to anticipate this support in the future, $\chi^2(1,N=233)=5.42$, $p<.05$. Also, participants who have graduate-type work experience were significantly more likely to have had work arranged for them by family or friends, $\chi^2(1, N=293)=3.99$, $p=.03$, although this relates to a smaller odds ratio of 0.6:1 (see Appendix Table C.19, p.405). These findings support the theoretical framework, though because of the reported uneven group sizes, missing data, and crudeness of the instrument which may not capture the more diffuse aspects of disadvantage, these results should be treated with some caution.

5.5.4 Summary of main findings. In summary, the results showed support for three of the four the hypothesized relationships. The standardized regression coefficients supported H4, that a student's SRL status will have a large direct effect on their transversal skills (H4), $\beta = .58$, $p<.05$ and academic study (H1) $\beta = .34$, $p<.05$.

Table 5.11: *T-Tests and Descriptive Statistics by Gender*

	Gender								
	Male			Female					
	M	*SD*	n	*M*	*SD*	n	t	*df*	*d*
MAI	108.56	18.25	103	109.47	14.57	191	-.43	173	-
NGSE	30.25	6.51	103	28.47	6.22	191	2.31*	292	.27
WSSE	68.19	14.95	103	65.32	12.86	191	1.72	292	-
EBI	68.43	10.48	103	67.52	8.61	191	.80	177	-
SI	1776.08	278.95	103	1850.09	283.09	191	-2.15*	292	.26
WE	5.46	2.06	103	5.79	2.17	191	-1.28	292	-
CG	9.36	2.71	103	9.73	2.94	191	-1.03	292	-
DC	1.92	.70	83	2.00	.66	151	-.91	292	-

Note: *p<.05., WE = Work Experience, CG = Careers Guidance, DC = Degree Classification

Furthermore, indicating a moderate effect on careers guidance (H3), $\beta = .25$, $p<.05$. But, in contrast to what was predicted, no significant support was shown for engagement with work experience (H2), $\beta = .02$, $p>.05$. All possible indirect paths were calculated using the model constraint function. There was no evidence that SRL would indirectly affect skills via engagement with work experience (H2a), careers guidance (H3a), or degree classification (H1a). There was, however, a significant (though weak) indirect path shown for a relationship that had not been hypothesised, that careers guidance would positively impact a student's skills status, via its effect on engagement with work experience, $\beta = .01$, $p<.05$. These findings are broadly affirmative to Research Question 1 (can SRL predict students' engagement with practices associated with employability capitals) making an important contribution to understandings about employability by offering SRL as a viable psychological mechanism underpinning

engagement with employability, while also suggesting a more complex pattern that needed further interrogation.

5.6.0 Discussion

Employability in the contemporary HE context demands not only that students engage with careers in a traditional sense, for example by thinking about what job they would like to do, but also that they direct their learning in new ways towards employability capitals. Such demand on learning contributes to calls for empirical work that can offer both students and HEIs 'direction and strategy' (Jackson, 2014c, p.2). Guided by Holmes' possession, position, and process typology of approaches to employability, this thesis argued that the construct of self-regulated learning (SRL) is a useful concept for understanding student engagement with employability.

Self-regulated learning is a theory grounded in ideas about how people manage their learning across time and towards future goals (Zimmerman, 2005). Such a prospect responds to the overarching aim of the thesis, which was to develop empirically supported evidence for how universities can best support students in preparing for graduate employment and provide a lens for understanding the development of skills for learning, which in turn, students can apply to engagement with employability capitals towards graduate employment.

Study 1 addressed Research Question 1 which asked whether SRL can predict students' engagement with the employability capitals of academic study, work experience, careers guidance and transversal skills. To this end, Study 1 adopted a psychometric approach, measuring student engagement with academic study, work experience, career guidance, and transversal skills against a combined set of measures that were used to create a measure of SRL. Path analysis results showed that SRL had

a strong effect on academic performance and on the transversal skill sets valued by employers. A student's capacity for SRL was also shown to impact on their engagement with careers guidance. This means that the greater a student's level of SRL, the more likely they are to have a high academic performance, as well as engage in transversal skills and careers-guidance activities. However, SRL did not impact on engagement with work experience. These important findings are outlined in more detail below.

5.6.1 Academic Study. Gaining a degree is inherently an important capital of employability in the graduate labour market. In Study 1, a proxy of academic engagement was achieved through measurement of students' anticipated degree classification based on performance so far. The results showed that academic engagement followed a bell curve, with 66% of students expecting a 2:1 degree or above, and thus reaching the 'essential 2:1' boundary claimed as valued by employers (Pitcher & Purcell, 1998; Smetherham, 2006). It is noteworthy that, while the instrument is self-report and so subject to bias, the data collected was similar in frequency to the percentage distribution of undergraduate degrees in 2013/2014 as reported by HESA (2015) of First 20%, Upper Second 51%, 2:2 24%, and Third Class 5%. Therefore, although the instrument may be considered a 'blunt' tool, the approach to the measurement of academic study was considered trustworthy and credible.

In a key finding, the results supported the prediction that SRL impacts on academic performance, with a moderate effect. SRL is an established predictor on academic performance (e.g. Clark, 2012; Garner & Alexander, 1989; Schmitz & Wiese, 2006; Zimmerman & Campillo, 2003). Therefore, when thinking about how students engage with academic study, as part of employability, considerations of SRL are important. These findings were bolstered by evidence that students who anticipated

a 1st class degree also scored significantly higher metacognitive scores, indicating that students with higher metacognitive status are more able to engage in the higher order thinking skills needed to plan, execute, and evaluate the tasks which result in a more accomplished piece of academic work. This pattern repeated for general self-efficacy in line with research showing that students who believe they can perform are then more likely to be motivated to persist and be successful (Bandura, 1977; Chen et al., 2001; Schunk & Zimmerman, 2007). But it is noteworthy that there was no support for a relationship between academic study and the Workplace Social Self-Efficacy instrument, indicating that there might be more to know about self-efficacy and employability than these initial results show. For example, academic study is positively related to self-efficacy, but academic study is not related to workplace social self-efficacy, such divergence leads to questions about where students will gain self-efficacy about participating in the workplace.

The results also demonstrated a significant, although weak, relationship between epistemological belief and academic performance, supporting a growing body of literature that epistemological belief influences student performance through the facilitation of enhanced problem-solving (Neber & Schommer-Aikins, 2002) and critical thinking (Kardash & Scholes, 1996; Miri et al., 2007). The proposal is that students who are more academically capable hold more sophisticated beliefs about how knowledge is generated, which in turn influences their action towards knowledge generation.

Together these findings support the significant existing literature that links SRL and learning. However, they also speak to concerns in the literature base that the complex demands of employability engagement disproportionately effects weaker students through the challenge of planning and strategising their efforts towards a goal

of engaging with endorsed employability practices (Driffield et al., 2011; Reddy & Moores, 2012). Thus, SRL status is shown as a predictor of academic performance, a finding which supported further enquiry into the relationship between SRL and the broader employability capitals of work experience, careers guidance, and transversal skills, outlined below.

5.6.2 Work Experience. Work experience is commonly accepted as the facilitator of, and evidence for, employability development, since work experience is understood as offering a process of experiential learning, or learning through 'doing' (Bennett et al., 2008; Branine, 2008; Nunn et al., 2008). This construction of work experience as a central component of employability development has led to the argument that undergraduate students should endeavour to orientate their learning towards work experience opportunities. The evidence also suggests that a substantial proportion of students are receiving this message and engaging with work experience in increasing numbers (Elias & Purcell, 2004).

The findings of Study 1 supported the literature reviewed in chapter 2, matching reports that substantial numbers of students were engaging with work experience alongside their academic studies; 88% of the participants were involved in 'non-graduate' work experience, and most students (87%) were joining in groups, clubs, and societies as part of their wider university experiences. In contrast, far fewer (30%) students engaged with 'graduate' type work experience, even for short periods. Together this data provided a composite score representing participants' levels of engagement with a range of work experience capital.

Study 1 predicted that students' SRL status would predict their engagement with work experience. However, as a key finding, and in contrast to the results relating to

academic study, SRL was not related to engagement with work experience. This result was supplemented by a lack of significant indirect pathways. Thus, there was little support for the prediction that students with developed SRL would be more likely to engage in work experience. While significant numbers of students are engaging with some form of work experience, this action does not seem to be drawing on the same learning processes as shown with academic study.

Given the considerable support for ideologies of work experience, especially using an experiential learning cycle framework (Kolb, 2014), a lack of a path analysis relationship was troubling. There were several reasons reflected upon as to why a relationship may not be present or strong. It may be naive to assume that students engaging in employment are doing so solely towards a goal of employability. They might be working primarily to earn money, for example. The students may also be participating in work experience as a compulsory activity through earlier school or HE experience. Moreover, the students may have accessed work experience as a result of social networks or through geographic differences in the availability of this capital. All of these reasons may impact on a student's likelihood of participating in work experience irrespective of their underlying SRL status. These unexpected results may, therefore, reflect the complexities of capturing complex social behaviour through the psychometric approach utilised opening up the possibility for further investigation enabled by other methods.

There were some nuanced results evident in the data. Significant, but weak correlations were shown between work experience and self-efficacy, and work experience and epistemological belief. Drilling down on the data further showed that students with low engagement with work experience were also shown significantly more likely to think that knowledge is 'simple to gain'. Moreover, through stratification,

male students were shown to be more likely to orientate towards this belief. These findings have implications for the motivation to act within employability, since beliefs that learning is simple may make students gravitate towards quick rewards rather than the sustained engagement required for employability.

There was also some evidence of demographic differences in who engages with the 'valued' graduate type work experience. Students in the older age-group (22-30) were significantly more likely to have engaged with 'graduate' experience than younger participants. Moreover, males were significantly less likely to have 'graduate' type experience. There was no evidence that socioeconomic background, using the NS-SEC, impacted on engagement with work experience, although the supplementary questions showed that students who undertake graduate type experience are significantly more likely to have the work arranged by family and friends. Lower SES groups were significantly less likely to expect family or friends to arrange work (experience) for them in the future. Since the parents of a student from the higher SES bracket were significantly more likely to hold a degree, they may have more access to cultural knowledge about progression routes from which their children could benefit. Since students from lower SES backgrounds are known to have fewer professional networks (Allen et al., 2013), these results confirm their status as a vulnerable group and contributes to the argument that barriers to employment are external to the students' control (Budd, 2016). The results show that in the context of 'graduate' level work experience, younger students, male students, and students from lower socioeconomic backgrounds may benefit from intervention whether at the individual or employer level.

In contrast to the key finding that SRL impacts on academic study, the results in this section indicated that SRL informed pedagogy might not increase the likelihood of work experience participation. Alongside academic study and work experience, a

further capital of employability is engagement with careers guidance, outlined below.

5.6.3 Career Guidance. Careers guidance includes a broad range of activities intended to support students in developing a tier of skills relevant to applying for and securing a job (Helyer & Lee, 2014; Knight & Yorke, 2002). Chapter 2 outlined the argument that students struggle to engage with the strategic planning demanded by careers guidance, resulting in reduced engagement with these sorts of action (Artess et al., 2017; Greenbank, 2014). One reason to why this might be the case was offered by notions of 'future orientated' identity demands (Allen et al., 2013), inferring that students access careers guidance to mediate the demands of directing their action towards a goal of graduate employment. For example, students who have a clear future career goal may more readily engage with careers guidance because they think that this action will help them to achieve their aspirations, but students who are more orientated to the present may struggle to understand the relevance of careers guidance to their daily activities.

Study 1 provided support for the concerns found in the literature indicating that the uptake of careers guidance is low, with most students reporting no action (60%), although a majority of students reported planning to take advantage of guidance within 12 months. The highest recorded engagement was with 'signing up to receive information', while the lowest was 'attend a 1:1 session'. Together these results show an underlying value for the action, but reluctance to engage. It appeared that the intention to engage was deferred to a future, when the need may be perceived to be higher than at present. Further analysis revealed that students with 'graduate' type work experience were more likely to commit themselves to careers guidance. Moreover, an incremental increase in engagement was shown across the year groups. These results are informative

because they indicate the need for different understandings about how students make sense of engagement with careers guidance. For example, especially given the statistical support for removing the academic study/ careers guidance pathway in the path analysis, it may be that understandings of academic study and careers guidance may need to be drawn together, or thought about in different ways, prospects which further open up opportunities for further investigation by other methods.

In a key finding, the results supported the prediction that SRL impacts on engagement with careers guidance to a moderate effect. So the more proficient a student is at SRL, the more likely they are to engage in careers guidance activities. Observation of the correlation values yielded no relationship between careers guidance and epistemological belief. Moreover, although there was a positive relationship with metacognition, this effect disappeared for the no-graduate-experience group. This result indicated that more metacognitively-able students are more likely to engage in careers guidance and also participate in the higher valued experience regarded as 'graduate'. This inference is built upon by the presence of an indirect relationship in the path analysis. SRL influenced engagement in careers guidance, which then increased skills via the work experience achieved as a result of that initial engagement. These results not only support literature proposing that students benefit from a well-resourced career service facilitating 'quality' placements (Paisey & Paisey, 2010), but also that career guidance pedagogy rooted in SRL approaches are more likely to be effective when in conjunction with high quality/graduate level work experience.

Having outlined the demonstrated importance of SRL for academic study and engagement with careers guidance, but also a more complex profile for the relationship between SRL and work experience, the next section outlines the relationships shown with transversal skills.

5.6.4 Transversal Skills. Chapter 2 outlined transversal skills as sets of proficiencies which respond to the needs of graduate employers, in an overlap between of employment and education. There was a consensus in the literature that to have employability then students must hold these skills as demanded by graduate employers (Hinchliffe, 2002). Although subject to fierce debate, graduates are widely acknowledged to be lacking in transversal skill sets, especially from the stakeholder perspective of employers (Cumming, 2010; Davies, Mangan, Hughes, & Slack, 2013). In Study 1, a Skills Inventory (SI), based on taxonomies of employability skills and organised by five 'awarenesses', was developed to yield a transversal skill score. The results showed a normal distribution, a result reflecting the continuum of skill ability which is observed in the applied setting.

The results demonstrated that participants perceived themselves as most proficient at skills recognisable in the academic environment, for example, 'meeting deadlines', 'using a word processor', and 'being friendly'. Moreover, also least proficient at the skills which sat in the 'commercial' category, for example, 'profit awareness', 'risk management', and 'quality control.' These results are consistent with literature reporting that business awareness is one of the most valued, but often lacking, graduate skill (Kavanagh & Drennan, 2008). Therefore, supporting the literature base which warns that while students are engaging with skills, they may not be engaging with the full range of transversal skills which meet the expectations of graduate employers.

In an important key finding, path analysis showed strong evidence for a positive effect of SRL upon transversal skills. Therefore, SRL is influential to the process of how students engage in learning towards the skill sets valued by employers. These findings build on the evidence shown by Clements and Kamau (2017) that mastery

motivation, being proactive towards learning, is strongly linked to skills development, and upon a developing voice in the literature base which supports bringing concepts of self-regulation into conceptualisations of employability as a process (Holmes, 2013; Kavanagh & Drennan, 2008; Van der Heijde, 2014).

Developing on the finding that SRL is important to transversal skills, there were also correlations demonstrated between metacognition and transversal skills, and also self-efficacy and transversal skills. Moderate correlations were shown with metacognition across all categories of skills. In particular, students with higher metacognitive status were more likely to show strong skills in the 'project management' factor. This finding contributed to the integrity of the data since it is intuitive that this skill grouping would require cognitive dexterity.

Self-efficacy was also shown to be related to transversal skills. This finding supported the broader literature review which suggests that those with high self-efficacy expect to be successful across a range of tasks, facilitating a motivational buffer which sustains action (Bandura, 1977; Chen et al., 2001; Schunk & Zimmerman, 2007). The findings also build on the more focused literature which suggest that self-efficacy is related to employability (Dacre Pool & Sewell, 2007; Gbadamosi et al., 2015). A key implication of Study 1 is that should HE seek to encourage students to engage with the transversal skill sets valued by employers and academia, then interventions or curriculum underpinned by the principles of metacognition and self-efficacy are more likely to be effective.

In contrast, there was no evidence of a relationship and between epistemological belief and transversal skills. It is noteworthy that several of the epistemological subscale results operated in a negative direction, albeit non-significantly. Negative epistemological belief scores indicated that the more sophisticated approach to

knowledge generation, the less likely the student is to hold the skills valued by employers. These results are troubling since they challenge the link between the valued practices of academia and those of employability. These complex and problematic findings suggest that an important issue for further enquiry is how students make sense of the knowledge value of employability engagement.

There was some evidence of demographic differences in engagement with transversal skills. A gender difference was observed, with females reporting significantly higher global-skill scores, especially in the subscales of communication and ethical awareness. This finding supports literature which shows gender differences in how men and women evaluate and report skill status (Etzkowitz et al., 2000). These findings are especially interesting in the context of female students also reporting lower overall self-efficacy, mirroring the literature demonstrating that females tend to have less belief that they can perform a task, and yet rate themselves as having more objective skills in comparison to peers (Hackett & Betz, 1981; Hackett et al., 1990).

The Workplace Social Self-Efficacy scale provided a useful comparison of self-efficacy with sex differences. While there was no overall difference between genders when observing the subscales, the women held lower self-efficacy to perform in public contexts (for example, presenting to clients) and conflict management (for example, approaching supervisors). These findings link with gendered occupational identities where women are less likely to present themselves as competent at tasks irrespective of their underlying ability (Mackenzie & Knipe, 2006). As such, although with caution applied due to different group sizes, the result provides avenues for further research and indicates the value of interventions which directly target the identity development needs of female students when seeking to raise self-efficacy.

5.7.0 Conclusion for Study 1

Study 1 addressed Research Question 1 that asked whether SRL can predict students' engagement with practices associated with employability capitals of academic study, work experience, careers guidance, and transversal skills. Data was collected from 294 students who were aged 18-30 and registered on degree programmes across the UK.

In key findings, a students' capacity for SRL was shown to impact on academic study, transversal skills, and careers guidance, but not for work experience. This means that the greater a student's level of SRL, the more likely they are to engage with actions linked to employability, namely, successful academic study, learning transversal skills, and participating in careers-guidance activities. The results of Study 1, therefore demonstrate that SRL is an important mechanism of engagement with employability capitals, and employability interventions preparing students for the graduate labour market in HE should be informed by SRL.

Since previous research showed that higher SRL is linked to better degree outcomes and Study 1 shows a similar relationship between SRL and engagement with employability, the implication of Study 1 is that encouraging students to develop better SRL will enhance both the academic and employability outcomes, reducing conflicts that students and academic staff report in deciding where to direct their energies regarding academic or employability practices (see chapter 1). Study 1 findings also contribute to the process approach to employability and the wider shift outlined in the literature review, from a simplified employability meaning what capital a student 'holds' and towards notions of how a student moves towards being an employable citizen, the implications and future directions of which are outlined below.

5.7.1 Implications. Study 1 outlined the novel finding that SRL is an important contributor to models of employability. Students are in demand to direct their learning towards valued employability capitals in what may be new and complex ways (Holmes, 2013). Given the results of Study 1, implications for HE institutions are that curriculum development, pastoral support, and study skills advice would be most successful at optimising employability engagement if designed with the fundamentals of SRL in mind.

Schraw et al.'s (2006) model of SRL proposed that metacognition, 'thinking about thinking', is the knowledge about cognition and practice at regulating cognition which enables engagement in sustained action towards a goal across time. While students may be knowledgeable about the demands of employability, and may also be aspirational, they may not know how to plan sufficiently, monitor or evaluate their learning process towards their goals in the graduate labour market. SRL can, therefore, be understood as developmental and operates on a continuum even in adulthood (Alexander et al., 1995; Baird & White, 1996; Flavell, 1979; Kuhn, 2000). Not only do students arrive at university with differing levels of SRL maturation, but with different experiences of and practice at tasks which facilitate learning (Schraw et al., 2006; Zimmerman, 2008). For example, some students may already have experience of balancing the demands of graduate-level employment and academic work. In the context of standard entry students, there may be a demand to engage in complex learning before students achieve the maturity which would facilitate this action, but equally, before they have had the opportunity to develop expertise in those tasks. Therefore, it would be reasonable to assume that some students would find strategising their learning process easy, while others will face barriers. Thus interventions which do not take account of SRL and the

mechanics of maturation may be unsuccessful.

A second implication is that, given the importance of SRL from a metacognitive perspective, knowing about 'something' is insufficient to result in action (Kuhn, 2000). The relationship between metacognitive status and employability indicated by Study 1 suggests that traditional models of knowledge transfer (i.e. students being given information about employability) are inadequate. Metacognition is 'teachable', and there is a wealth of established pedagogic enquiry to guide intervention, including the provision of instruction in the cognitive principles of learning, followed by engagement with experiential learning or reflective practice (Pintrich, 2000; Zimmerman, 2008). Hargrove (2013) and Wagner et al. (2014) evidenced metacognitive gains with students after a short period of instructive techniques based on cognitive principles. A point for further reflection may be that although including professional development plans or portfolios in the curriculum is commonplace, it is less typical to base instruction and practice upon the necessary cognitive principles. Therefore, when applying SRL thinking to employability, HE may risk stopping short of the necessary learning needed to engage with the complex demands of employability.

In responding to the belief systems that a student needs to have in place in order to act, there is an established literature base which extols the value of self-efficacy in the HE context. The construct positively influences a range of educational activities including academic engagement, effort, persistence, conscientiousness, goal orientation, and overall achievement (Bandura, 1977; Chen et al., 2001; Schunk & Zimmerman, 2007). Almost all models of employability include a variation of self-efficacy. However, there is a limited evidence base, and as with metacognition, there is a propensity to focus on engagement and goal-driven behaviour in the academic context. Study 1 showed that students with higher academic performance are more likely to have

higher self-efficacy. Since successful performance, or mastery, is known to facilitate self-efficacy, the main avenue for students' self-efficacy within HE is the achievement of grades. The implication is that self-efficacy towards graduate employment may be elusive for students who do not achieve high academic grades (Driffield et al., 2011; Duignan, 2002). This issue is further problematised by the discourse of an employer-driven 'essential 2:1' (Pitcher & Purcell, 1998), and by a lack of relationship between the WSSE (workplace social self-efficacy) and academic study.

Self-efficacy is supported by experience, for example, through the observation of others performing tasks (especially when they are of a similar ability), when the experience includes affirmation, or when engaging in activities which increase anxiety, without so much that this is an emotional barrier (Bandura, 1977). Often in employability pedagogy, the proposed conduit for this growth is engagement with experiential learning through workplace exposure through placements, or similar, an approach supported by the significant and positive correlations between self-efficacy and engagement with work experience shown in Study 1. High self-efficacy in the academic context does not necessarily translate to beliefs about the workplace. Therefore, this thesis' findings suggest that opportunities to increase self-efficacy towards employability will benefit both lower performing and higher performing students. As such, institutions should critically evaluate their mechanisms for assessment to ensure that they are conducive to the learning demanded by employability. The results of Study 1 provide novel evidence of its importance and supports the use of interventions which specifically aim to raise self-efficacy as a priority for HE institutions.

As a final implication, the literature review outlined the persistent challenge faced by HE to unpick the complex relationship between learning and employability. A first

step of the analysis was to demonstrate the relationships between academic study and the further capitals of employability, namely, work experience, careers guidance, and transversal skills. Correlation analysis showed weak but significant relationships across academic study and transversal skills, and across academic study and work experience, but not with careers guidance. However, subsequent more powerful path analysis did not show academic performance as a predictor of the further capitals of employability. Moreover, the results indicated that that higher (anticipated) academic performance does not automatically mean broader employability engagement. Of particular note, the direction of the results showed that the higher a student anticipated their degree classification to be, the lower their transversal skills. This troubling result indicated the potential for an 'interference' between the mechanisms that support engagement with academic study and those that support employability. Such findings build on arguments that the way employability is being delivered in HEIs is creating a tension between what might be considered learning for learning's sake (i.e. work towards academic scholarship) and learning towards a goal of employment (Chertkovskaya et al., 2013; Harvey, 2000).

Study 1 showed a main finding that SRL is informative to understanding employability engagement. However, a holistic and complex picture emerged. In particular, directions for future research was shown in the findings that, despite a lack of support between SRL and work experience, the students often engaged in work experience, although mainly through non-graduate roles, such as bar work. Moreover, most students were not engaging in career guidance, but planned to do so in the future and while they engaged with the forms of skills recognisable from the academic setting, there were also gaps in engagement especially relating to the 'business skills' valued by employers. Furthermore, unexpected results shown with the construct of

epistemological belief and patterns across gender indicated that there is more to know about student engagement with employability capital than these results alone provide. Thus, these findings indicate that there is more to know about student engagement with employability capital than these results alone provide.

The findings of Study 1 are valuable and informative to the questions which surround employability in the context of HE. Several characteristics of the data supported the integrity and validity of the data. For example, by following the quality criteria processes of the statistical analysis to the highest level described earlier, and findings which provide support for a well-established relationships between SRL and academic study, and predicted engagement with the employability capitals of work experience and careers guidance. Nonetheless, several limitations of the study are outlined below.

5.7.2 Limitations. The approach taken to measure employability was cross-sectional which impacted on the proposed 'causal' relationships of the employability model. The generalisability of the findings was also affected by several sampling issues. First, was the decision to sample standard-entry students, which while justified in chapter 1, means that there are groups of students who may present a different employability profile, including students on vocational pathways, such as medicine, or mature and part-time students who may have an extensive or current employability profile. And while efforts were made to collect data from a broad sample of students, most participants identified their national identity as White British, 59% of participants studied at a single UK university, and other demographic information, such as disability, was not collected. As such, Study 1 could also be considered culturally restricted and may lack the diversity of the broad population impacted by employability, particularly given that there was

no opportunity to engage in random sampling, which reduces the overall power of the statistical analysis. Given the utility of SRL evidenced in this study, but the relatively narrow sample of students studied, future research on a wider sample would be useful to test the generalisability of the findings.

In another limitation, some of the data indicated the potential for further exploration and evaluation of the instruments used. In particular, the EBI instrument which captured epistemological belief, yielded a mixed pattern of scores which recorded barely adequate Cronbach's alpha values. Although valuable results were shown, for example, the significant relationship between epistemological belief and academic study, the limitations of the instruments' psychometric structure also reflects the complexity of capturing lived experience, warranting further investigation using different methods. These findings open up further questions about the psychometric structure of the instrument chosen, but also the applicability to the topic area. Moreover, if this instrument were not the best tool for the job, then what would be an ideal or preferable tool?

As a further issue, Study 1 also captured current age rather than age on enrolment. The instruments selected were validated mainly with the 18-21 age group, and so may not capture the advanced or complex skills achieved through an established career history. Future data collection could use a more sensitive measurement of age, including asking age at enrolment and providing a 21-25 category. However, this issue opens up further questions about maturation and development, both of which are integral to considerations of student diversity and preparation for the workplace.

Several problematic aspects of self-report were considered when designing Study 1. Firstly, whether participant responses reflect inner states or are subjective socially-influenced indicators (Schwarz, 1999). Thus, when asked about the ability to plan,

does a person's response reflect the cognitive process of planning or their social knowledge of planning. Secondly, there is a need to consider individual differences in self-report yielded data, for example, Leach (2012) evidence that higher achieving students are more likely to underrate their skills than low achievers. Finally, there are known differences across how adults understand and respond to items and constructs, especially when researchers and participants do not share the same 'language', or when using closed questions which force a response (Fulmer & Frijters, 2009; Rattray & Jones, 2007). Piedmont, McCrae, Riemann, and Angleitner (2000) argued that concern of self-report is often unduly placed in low-demand situations, thus providing support for the approach taken by Study 1 since the participants were taking part voluntarily and in their own time. Furthermore, potential problems with self-report were also mitigated by the researcher using recommended techniques in questionnaire design to minimise the risk to data integrity and acknowledge cognitive stages for the participant.

5.7.3 Further work. The findings of Study 1 provided important and novel support for the contribution of SRL to employability engagement. But consistent with understandings of employability as a complex and multifaceted construct, the statistical analysis also indicated layers of complexity that are not easily observable using the quantitative approach. In particular, two aspects of the data relating to employability capitals indicated fruitful lines of further enquiry, outlined below.

Firstly, the statistical analysis showed unexpected results relating to the work experience capital. Descriptive statistics demonstrated that students do engage with work experience, albeit through non-graduate routes rather than graduate level work. However, path analysis showed that such engagement is not predicted by their underlying capacity for SRL. The data analysis relating to careers guidance further

interrogated this issue. Although fewer students engage with careers guidance, those who did had a positive relationship between their SRL status and careers guidance engagement, which consequently increased their participation with work experience and in turn, their transversal skills score. Secondly, path analysis showed SRL was a strong predictor of academic study, but academic study was only weakly related to the other employability capitals. Therefore, the results indicated that engagement with academic study (through the proxy of anticipated grade) sits somewhat apart from engagement with other employability capitals. The statistical analysis of Study 1 therefore implies that there is more to know about the relationships between SRL and the employability capitals than the data explains. Most students were engaged with work experience, but this action was not driven by their underlying capacity for SRL. Moreover, SRL was a strong predictor of academic performance, but academic performance was not related to the broader employability capitals. These findings are also supported by measurement errors that indicate that there is more to understand about the relationships between the variables. Thus, a need to understand employability capital more deeply was fundamental to the rationale for Study 2.

Existing literature explains some of the complexity described above, in arguments that capitals of academic study, transversal skills, work experience, and careers guidance, operate together to form a comprehensive university experience, sometimes thought of as an employability portfolio. Such thinking influences the way in which employability is theorised and operationalised in empirical research, but also in the policy and practice informed by that research. However, Fugate et al.'s (2004) Psychosocial Model of Employability seeks to map the complexity of employability, defining it as a person's ability to balance personal factors with environmental demands. Employability is thus a social process, with students located within multiple social

systems. The critical realist framework adopted by this thesis advocates complementary approaches for exploring complex constructs such as the social, personal, and psychometric dimensions of employability. In the next chapter, Study 2 responds to the multiplicity and dynamism indicated by the quantitative results and seeks to answer Research Question 2 by exploring employability capitals in different ways through qualitative template analysis, with view to producing more nuanced understandings about the processes and factors involved in employability engagement.

Chapter 6

Study 2

6.1.0 Introduction

This chapter reports the background, method and findings of Study 2, a qualitative study that used template analysis on individual interviews and focus groups with first-year students to explore how students understand employability capital.

Previous chapters in this thesis argued that self-regulated learning (SRL) could provide a bridge between the possession, position and process approaches to employability, proposing that for students to become 'employable', they need to engage in a series of valued capitals towards a goal of being competitive in the graduate labour market. Capitals include understandings that successful academic study as evidenced by the degree (and degree class) provides a competitive advantage in the labour market, that work experience is a valuable endeavour for undergraduate students when building skills (see Driffield et al., 2011), and that careers guidance activities offer opportunities to explore career aspirations (see Buchanan, Kim, & Basham, 2007). However, despite considerable theoretical attention towards student engagement in a range of practices as a part of, and sitting alongside, their university curricula, there is a dearth of empirical research that explores the notion of employability capitals as related and dynamic practices. Therefore research that not only explores how students understand each capital but also how these understandings interact as part of a broader learning experience In addition, Study 2 addresses another paucity in the literature, namely the

student voice.

Study 2 draws on qualitative methods to explore the student voice about employability capitals. Qualitative methods specialise in analysing complex, dynamic concepts and individual meaning-making, enabling the voices of participant experience to more explicitly contribute to the knowledge generated about them (Sullivan et al., 2012). The perspective of the student is particularly salient for this thesis because employability is somewhat territorialized by other powerful stakeholders, such as HE institutions, government, and graduate employers. In fact, there is scant qualitative research that includes the standard-entry undergraduate student, making the student understanding of employability capitals a 'missing perspective' (Tymon, 2013).

Building on the findings of Study 1 and to further address the gap in student voice, Study 2 explored how first-year undergraduate student made sense of the four employability capitals of academic study, work experience, careers guidance, transversal skills, and their engagement (or lack of engagement) with them. Students are under pressure to orient towards a goal of graduate employment from the beginning of their HE journey, so Study 2 drew on the experiences of first-year students in order to answer Research Question 2, how do first-year students understand the different employability capitals?

6.2.0 Method

The following section details the method for Study 2. A rationale for the broader methodological framework can be found earlier in chapter 4. In line with good practice in qualitative research reports, the method is described under the subheadings of design, participants, methodological theory, method of data collection, procedure, ethical considerations, data analysis, and reflexivity and validity (Sullivan et al., 2012).

6.2.1 Design. To understand more about employability capitals, Study 2 used template analysis on data from interviews and focus groups with first-year students studying geography or psychology. Eight students participated in a semi-structured interview and 12 in one of four focus groups.

A card-sort activity was used to structure both focus groups and interviews. The content of the card-sort activity was developed by the HEA Enhancing Student Employability Co-ordination Team (ESECT, 2011). Using a header card of 'Employability is…', this resource included twenty-nine statements which aligned with both mainstream and critical perspectives on the four employability capitals. For example, statements about work experience 'learning about the world of work' and careers guidance 'about job-getting techniques'. Appendix Table D.2 (p.425) lists the twenty-nine card-sort statements. There was no intention to restrict the student from making meaning in their own way. And often the ambiguity of the statement was observed to encourage the students to unpack their own experiences alongside frames of reference which would subsequently feature in the analysis. For example, a card of 'social engineering' was included. It was assumed by the researcher that social engineering alluded towards critiques of employability; potentially that employability encourages manipulation of students to fit a social norm. However, no such talk was visible in the discussions and students most frequently responded to this card with narratives about social networks and friendships. As such, the analytic focus was on what the students said, but also retaining a thread of that which was not spoken about.

6.2.2 Participants. In Study 2, an opportunistic sample method was used to recruit twenty first-year undergraduate students (Female=14, Male=6). Eight students participated in interviews, and a further twelve students participated in one of four

Table 6.1: *Study 2: Summary of Participant Demographics*

	N	Age (mean)	Gender	
			Female	Male
Interviews	8	19	6	2
Focus Groups	12	18	8	4

focus groups. All sample selections were opportunistic with advertisements targeted participants based on their convenience and willingness to participate from a rural Welsh University. The inclusion criteria included that students be aged between 18 and 21, first-year undergraduates, and studying psychology or geography. Mature students were excluded, in alignment with the study aims of capturing a standard-entry or 'typical' student voice, especially since the former group may have more extensive experiences of work. Table 6.1 summarises the participants' self-described demographic profiles organised by either interviews or focus groups (see Appendix Table D.1 p.424 for full demographic details).

6.2.3 Methodological theory. Template analysis allowed for a 'top-down' priori template of higher order themes of the employability capitals of academic study, work experience, and careers guidance. But also retained flexibility to respond to 'bottom-up' student understandings of capitals through the development of sub-themes. Template analysis therefore offered a dual-focus method that takes both a top down and bottom-up approach. The template was applied to interviews and focus group data, both of which are established methods for accessing participants' talk of their lived experience and methods of data collection often used in studies that employ template analysis (see King, 2012).

Template analysis is flexible across paradigms (Brooks, McCluskey, Turley, & King, 2015; King, 1998, 2012) and can thus be used from a critical realist phenomenological standpoint in alignment with this thesis aims of investigating SRL as a predictor of engagement with employability capitals. For this reason template analysis was employed in Study 2 to both investigate unexplained patterns in Study 1 and to provide novel insights from the student voice about employability capitals. Both the template analysis of Study 2 and the interpretative phenomenological analysis of Study 3 in the following chapter draw upon phenomenological principles of sense-making, a shared epistemology that facilitated reviewing the findings across the two studies in the final chapter. (Also see chapter 4 for a more detailed rationale of the use of template analysis).

6.2.4 Method of data collection. Study 2 used a combination of interviews and focus groups with undergraduate students to explore understandings of employability capitals. Both these methods of data collection are well established. The term 'interviewing' signifies a discussion, usually face-to-face with a researcher, which Burgess (1988, p.102) calls a 'conversation with a purpose'. While the term 'focus group' indicates that multiple participants are 'interviewed' together in a type of group discussion (Krueger & Casey, 2000). Both approaches are a 'craft', with the role of interviewer proposed as a 'miner' for information anticipated by the interviewer, or 'traveller', whereby the interviewer sets out without an anticipated destination (Kvale & Brinkmann, 2009). There are advantages and disadvantages to both approaches, outlined below.

Interviews are a popular approach to collecting textual data because they offer a familiar format for conversation (Atkinson & Silverman, 1997). An advantage of interviews is that the researcher can readily guide the conversation within the constraints

of an interview schedule in ways that might be more challenging in a group format. For example, a participant may feel more inclined to divulge personal experience in the more intimate setting of an interview, and there is a lower risk of accidental compromises of anonymity. However, employability is complex, and the literature base indicated that students could find the construct difficult to articulate. For example, Creasey (2013) showed that first-year students find it difficult to talk about their skills even with the support of an educator.

In a similar finding, Study 2 initially interviewed students and found the process useful, but somewhat constrained. For example, the interviewer had to unpack the issue being discussed and students often provided short answers, responses that lacked in the richness valued by a qualitative approach. In particular, there seemed to be either reluctance or difficulty to describe experiences of employability in a narrative type way. On occasion, the researcher felt obliged to manage students' expressions of anxiety about giving the 'right answer'. This discomfort may have blocked further probing by the researcher but also highlighted the potential for a power differential between the (assumed inexperienced) student and more mature researcher.

As a result, and in line with qualitative research methods in which designs can be developed during the project to flexibly address the needs of the project (Sullivan et al., 2012), the method of data collection switched to focus groups to better access how students' thoughts about issues related to the employability capitals being studied in this thesis. Focus groups can aid 'natural' discussion, they are known to promote the elaboration of stories, maximising the availability of cultural and contextual knowledge about a phenomenon (Gillham, 2005). Focus groups can also overcome power differentials that may exist between participant and interviewer and constrain the sharing of experiences because of differences in demographic grouping such as

age or gender. For example, in the focus groups students shared stories and unpacked their experiences in a more 'natural' way, adding richness and detail to the data but also scaffolding their ideas in ways which 'unpacked' the problem untethered from the interviewer (for consideration of the processes that might have produced such interactions see the reflexivity section in this chapter). The above issues provided the rationale for a shift from interviews to focus groups, and proved a fruitful decision.

There are also several acknowledged limitations to focus-group designs. Firstly, from a yielded data perspective there is a risk of dominant characters, expressions of criticism, or conflicting attitudes and beliefs that can result in self-censorship and risk of harm for the participants (Kvale & Brinkmann, 2009; Krueger & Casey, 2000). A focus on taking rigorous ethical approach and the creation of a warm and friendly environment aimed to overcome these potential problems and facilitate a space that was safe for disclosure of experiences. Secondly, from a functional perspective, it is logistically harder to arrange group meetings and 'no show' is an acknowledged limitation of focus group design. This risk was realised in Study 2 (and also Study 3) whereby a sample size of 5-6 students per group was sought and this recruitment target achieved, but on the day several participants failed to attend across the four scheduled sessions.

The combination of interviews and focus groups can achieve a more comprehensive understanding of the phenomenon under investigation (see Lambert & Loiselle, 2008). But there are also specific considerations about combining individual and focus group interview data. The literature warns of the risks of hierarchies of evidence, whereby one form of evidence is valued above another. For example, Lambert and Loiselle (2008) reflected that their focus group data provided accounts of general understandings while, in contrast, interviews gave more detailed descriptions of the phenomena. It is notable that the present thesis experienced the opposite, whereby the focus groups

facilitated more detailed descriptions of employability engagement. Also, the mixing of methods without thoughtful consideration can threaten the trustworthiness of findings (see Bryman, 2015). Concerns about trustworthiness were addressed in Study 2 through rigorous analysis, for example, through the provision of verbatim quotes labelled as focus groups or interviews (focus groups no label/ interviews [I]); but also through consideration of how combinations of methods interact within a critical realist framework (see chapter 4).

6.2.5 Procedure. Study 2 was advertised by the researcher through departmental email, university social media, and through presentations in university lectures. All study information noted that students with a range of experiences were valued, including those with no experience or understanding of employability. Interested participants received an invitation to attend a scheduled interview or focus group. Krueger and Casey (2000) recommend that participants should not be familiar with each other. Students were allocated randomly to the sessions, but it was not possible to guarantee that they were not known to each other, although there was no obvious indication of friendship across the participants.

All interviews and focus groups were conducted in a purpose-designed qualitative suite, with comfortable chairs and refreshments. A digital audio recorder captured the sessions. The researcher hoped to create a warm and friendly environment, which was conducive to the disclosure of experience. On arrival to the interview room, participants received a paper copy of the information pack and the main ethical points of the study were confirmed verbally. Each participant provided informed consent and completed a brief demographic questionnaire. Focus group sessions included an icebreaker activity from a television show popular with the student base. This approach minimised the

risk of power asymmetry and judgements across the participants and researcher, both of which might bias the data and restrict the 'unfolding' of experience (Krueger & Casey, 2000).

As explained in chapter 4 (page), a card-sort activity structured the interviews and focus groups. There were two sections to the card-sort activity. In the first section an A4 sheet was placed centrally on the coffee table, saying 'Employability is...'. This action provided a visible reminder of the discussion purpose for the students. The students then took turns pulling A5 laminated cards placed within an envelope so that they could not be read before being taking out. Each card displayed a statement about employability capitals (which could be thematically organised by academic study, work experience and careers guidance. There was no attempt made to manage the activity beyond the participants' motivation to move on; participants were told to draw another statement from the envelope when they felt they had sufficiently discussed the previous one. If the conversation was flowing, then the researcher remained silent, and participants were free to take the discussion in a direction meaningful to them. On occasion, the interpreted meaning was different from the intended meaning of the card, however these alternative meanings provided reflective opportunities. Occasionally the researcher would prompt for more information, for example saying 'tell me more about that'. Towards the end of the session, a second set of 18 cards, which included statements about transversal skills, were placed face-side up on the table and participants could select the card most appropriate to them. The two sections were organised in this way because there were many more cards about transversal skills and so this needed a different approach. This activity was used to 'wrap up' the sessions and provide the students with a further opportunity to add any point they felt had not been adequately covered. On completion of the interviews or focus groups, participants were debriefed

Table 6.2: *Transcription Notation*

Symbol	Meaning
...	Talk omitted
[text in square bracket]	Contextual information
[I] or [FG]	Interview or focus group participant

according to ethical procedures and thanked for their time. As a recognition of their time all participants were entered into a £25 prize draw.

Transcription notation. The researcher transcribed the audio tapes using the play-script method, using double-spaced with wide margins and line numbered. Transcription facilitated an immersion into the data and also the removal of identifying details such as names and recognisable places. Table 6.2 (p.196) displays the adopted transcription conventions; these symbols are used throughout the coming sections.

6.2.6 Ethics. The overall ethical approach for this thesis was described in chapter 4, which was guided by the BPS Code of Human Research Ethics (2011) and contemporary debates on different ways of conceptualising ethical practice in research. How this approach was applied to Study 2 is the focus of this subsection. Students who were interested in participating in the study received an electronic information pack, including details about the research purpose, inclusion criteria, withdrawal procedures, and any limitations to anonymity and confidentiality. All students provided informed consent and were fully debriefed. See Appendix Section B (p.370) for sample ethical documents.

A principle ethical consideration for the qualitative studies was whether students

could be harmed by disclosure of their experiences surrounding employability. Employability can be a sensitive topic, and it is possible that students are impacted not only by their employability prospects, but also their extended families and social network. In response to this risk, extra care was taken to ensure that the interviews and focus groups were experienced as a safe environment. For example, the researcher ensured a comfortable space, refreshments, and a warm welcome, and gave assurances that pseudonyms would be used. Although no personal benefit from participation can be assured, it was notable that several of the students spontaneously remarked about how useful and uplifting they had found the discussions and that they had welcomed the opportunity to unpack their understandings. As a final safeguarding exercise, arrangements were made for the participants to attend 1:1 follow-up sessions with a careers advisor, although due to confidentiality, it is not known if this service was accessed.

6.2.7 Method of data analysis. A template analysis was carried out on the transcribed interviews and focus groups using a process outlined by King (2012) and Brooks et al. (2015). This method is quasi-deductive, involving the application of a priori structure, or template, to the data in an iterative process.

Template analysis shares similarities with Braun and Clarke's (2006) thematic stages in terms of the coding of chunks of data, but diverts through its emphasis on the richest points of the data and flexibility across descriptive and interpretative coding. Braun and Clarke (2006, p.10) define a theme as 'capturing something important about the data about the research question, and represents some level of patterned response or meaning within the data set'. Chapter 2 outlined the rationale for broad thematic

categories of academic study, work experience, and career guidance[1], operating as valued employability capitals; these categories were used the a priori higher order themes. King (2012) then recommends using a subset of the data to develop the template. Study 2 used the interview data for this stage, beginning the analytic process by coding short 'chunks' of talk with a descriptive label and then iteratively manipulating the listed codes until they formed into groups which represent a 'good' cross-section of the issues. As such, by using the superordinate themes that were a priori decided, for example, work experience, the researcher was able to identify recurring patterns in how the participants talked about this theme. Goodness-of-fit, across the template and data, was achieved iteratively through a process of matching, reflection and redevelopment. The iterative process facilitated clear, conceptual, and mutually exclusive sub-themes which described the capital in different ways to which the theme was initially understood. For example, work experience was an a priori theme which, through the template analysis coding, could be talked about in three ways, for example as know how, growth and roadblocks. Table 6.3 (p.199) displays the super-ordinate deductive themes alongside inductive sub-themes. This template was then applied to the entire data, interview and focus group, using a spreadsheet to allow for easy manipulation into clusters. On completion, the themes were explored and presented back alongside links to Study 1, appropriate literature, and representative verbatim extracts.

[1]During the interviews and focus groups the students spoke about skills in relation to the other three capitals (e.g. the students spoke at ease about developing skills in their part-time jobs). For this reason the analysis is organised by academic study, work experience, and careers guidance.

Table 6.3: *Template of deductive and inductive themes*

Super-ordinate themes	Sub-themes (Inductive)
Academic Study	Employer Gaze
	A portfolio approach
	Grade value
Work Experience	Know-how
	Growth
	Road blocks
Career Guidance	Career path
	The quantifying CV
	Knowledge networks

6.2.8 Quality criteria. Quality criteria differ from those of positivist science, and rigour is addressed through considerations of credibility and trustworthiness and engagement with ontology, epistemology, reflexivity, and methodology (Sullivan et al., 2012). Creswell and Miller (2000) suggest a two-dimension framework for rigorous studies. Firstly, the 'researcher lens' explicitly acknowledges that the criteria chosen evaluate qualitative research is different to reliability and validity within a quantitative paradigm. Secondly, 'paradigm assumptions' refer to the researcher's worldview which has shaped the research development. These issues will be explored below beneath the overlapping headings of transparency and trustworthiness.

Transparency. Creswell and Miller (2000) refers to various ways in which research is considered transparent, in particular through clear descriptions of methodology and philosophical stance. In response, the thesis presented the adopted paradigm

of critical realism and mixed method approach (see chapter 4) and a comprehensive methodological framework alongside evaluations of the issues raised by the studies. Decisions were clearly articulated and justified, and an audit trail provided in the appendices.

Trustworthiness. The 'truth of local quality', refers to the development of strategies which work to maximise the quality of individual pieces of work (Creswell, 2013). Trustworthiness also relates to whether data was collected, analysed, and reported within appropriate ethical boundaries (Barusch, Gringeri, & George, 2011). The thesis sought to maximise the trustworthiness of the findings through a number of practices, including reflexivity. Creswell (2013) recommend that revisiting the participants be considered a second 'lens of credibility'. However, this is a controversial process with ethical risks associated. Carlson (2010) reports some concerns that participants can find the process of engaging with transcripts, themes, or results challenging, for example, requesting that the grammar of verbatim quotes be modified, feeling apologetic about not answering questions 'properly', or the introduction of new insights about behaviour. Given that employability can be an emotive issue for students, and that part of the thesis argument is that participants may be in identity transition, the researcher did not re-engage with the participants and critical interrogation of the interpretations was instead developed through discussions with academic colleagues and through participation in a critical psychology group.

6.2.9 Reflexivity. The shift from interviews to focus groups, and with it the increase in rich data, allowed the reflection that first-year undergraduates did hold extensive and rich experiences about employability, but that without scaffolding from group

discussion in which they could share their sense-making amongst peers they were more likely to reproduce narrow understandings of employability. Scaffolding is an expression used in educational pedagogy (see Vygotsky, 1987), whereby the knowledge and experience of one person is used to encourage activation of the learning process in another person. For example, students in the interviews would find it difficult to recount experiences where they had engaged with employability and would press upon the interviewer to provide them with reassurance about the 'right' answer. However, students in the focus groups appeared to use the experiences of other students to 'bounce off', not only finding their own narratives of engagement to add to the discussion but also sometimes in unexpected directions. These narratives formed important material for the analytic process. But also suggested that participants were more relaxed sharing their experiences amongst each other than on a one to one interview with the interviewer, who it is reflected upon is someone they saw as representing the institution and therefore requiring talk that mapped onto institutional values and expectations. This also suggests qualitative work with students on employability needs facilitators to whom students feel comfortable talking about counter-institutional ideological perspectives. Reflecting on those who did not attend the focus group, the literature suggested that students often intend to engage in employability, but then fail to act. This might suggest that those students who find engaging with employability particularly difficult did not have their voices heard in this study. Finally, reflection on the card sort activity suggested that it worked as a way to make the data collection process a more relaxed experience for the participants, and in so doing enhanced the richness of the data. On occasion, the interpreted meaning was different from the intended meaning of the card; however, these alternative meanings provided reflective opportunities and developed the researcher's understanding of students' sense-making.

A reflexive section is also included in chapter 8 to explore some of these issues further and across both Studies 2 and 3.

6.3.0 Analysis

Three deductive super-ordinate themes of academic study, work experience, and career guidance were used to guide the template analysis. Each of these superordinate themes yielded corresponding sub-themes. Academic study was explored through the subthemes of an employer gaze, a portfolio approach, and grade value. Work experience was explored through the subthemes of know-how, growth, and roadblocks. And careers guidance was explored through sub-themes of a career path, the quantifying CV, and knowledge networks. These subthemes are analysed below, including extracts from the interviews (indicated with an [I] after the extract) and focus groups; combined they offer important insights into the complexity of students' engagement with the four employability capitals.

6.3.1 Academic study. As chapter 2 discussed, graduate-level employment is a major rationale for higher education, creating the context in which employability is now a normal and inherent part of the education process, which structures choice of degree, curriculum content, and the balance between study and extracurricular experience. In Study 2, the students' talk reflected this notion. They explained employability and education as fundamentally tied together and identified employment as the main purpose of education. In so doing, the students normalised and naturalised the links between the two.

> 'I suppose it's being taught that it's[transition to employment] part of life now, it's just one of the natural steps so it's just ingrained as it's going to happening and just come to accept

it' Gregg [I]

'It's sort of the way society works as well. You can't really grow up without an understanding of employability, because it's seen as the next stage. So you go into education with the purpose of having a job at the end of it, and that's sort of something that's ingrained within society, I would say.' Mel

'They're [university] not going to not tell you to get a job, because it's the main purpose of it [degree], to become more employable' Scott

In the extracts above, Gregg called the transition from university to employment a *'natural step'* and *'ingrained'*. Mel also used the expression *'ingrained'*, through an expectation that it is the *'way society works'*, it is the *'purpose of education'*. Scott alludes to the taken for granted, inherent nature of employability in university through his recognition of becoming more employable as the *'main purpose'* of his degree.

These extracts directly tie together higher education with employability, and yet, throughout the talk, there was also a troubling of this understanding, with the talk articulating students' ambivalence and trepidation towards employability capitals. These issues are explored further through sub-themes of 'the employer gaze', 'a portfolio approach', and 'grade value'.

'Employer gaze'. As the students explored their understandings of academic study, they spoke about their imagined future employer as an important influence on their employability decisions. The term 'gaze' is used here to touch upon ideas about the role of looking in subject formation, for example, how women understand themselves in the context of a man's gaze (Riley & Evans, 2017). Here, the students' talk illuminated some of the power structures implicit in the entwining of education and employment through an employer's gaze on graduate students.

> 'If you don't have the skills the employer wants they are not going to employ you. It's simple because they get the choice, it's not up to you.' Sarah [I]

> 'I'd probably say it's about 90 % what the employers want, but the 10 %'s your own' Rebecca [I]

> 'There's a sort of a disparity, a gap, between the point at which you are educated, and the point at which you are educated, to the extent that you get paid more.' Mel

In the extract above, Sarah talked about how the expectations of her imagined future employer drove her action when selecting modules: she said the decision was *'simple'* because the employer rather than the student has the power of choice. Rebecca echoed this balance when she anticipated that her actions were driven *'about 90%'* by the employer's desires. And in an expression which directly addressed the transformation of cultural capital into economic capital, Mel identified a *'disparity'* between the point at which she is educated and when she is educated to the extent that she will be paid more (in employment). Despite their acknowledgement of the relationship between education and employment, there were disconnects between their own education and future graduate job prospects.

A basic premise of HE education is that students are self-regulated learners who are motivated and interested in engaging in their academic discipline and wider university experiences. However, the discussions suggested a more complicated relationship with learning, as the students attempted to locate themselves in a gameplay of amorphous capitals under the employer gaze. Not only was the employer gaze present as the students imagined forward to their graduate career, but also as they reflected back on their reasons for embarking on a degree programme.

> 'I was thinking of doing art at university, and me and mum looked at all the figures, and the graduate employment rates are really low, and often you don't get to work with art,

> urm, so I did geography' Vicky [I]
>
> 'I did think to myself, "Maybe at the end of the day I should have probably done English," because I always did well in English, without having to try too hard' Calanthia
>
> 'I picked geography because although I really enjoy philosophy, I couldn't really see anywhere I could go with that' Mel

Above, Vicky, Mel, and Calanthia's choices of degree programmes were informed by employability league tables or the discipline's reputation in relation to employment. Vicky was thinking of studying Art, but together with her mum consulted the league tables to make their joint decision based on feared future *'low'* employment. On the same basis, Calanthia wondered whether she should have selected English, where she anticipated better performance, but perceived poor employability. And Mel chose Geography because she could not envision future employment related to Philosophy. These narratives indicated that, rather than action decisions being driven by a neoliberal autonomous individual, they were instead cast within an 'employer gaze', a reminder of power structures which threaded through the data.

A portfolio approach. As the students elaborated on their rationale for undertaking a degree, they located academic study as forming one part of a larger overall package. The discussions included the sense that they needed to develop as a 'rounded' person. Students developed the notion that degrees allow access to graduate jobs by acknowledging their need to distinguish themselves from other students with similar qualifications further.

> 'There are millions of people around the world, that get degrees, and sometimes it's easy to view it as this like amazing, special thing, that only we're doing.' Mel

> 'A flat degree, it's kind of just a foundation to what you need to become, but employable for higher-end jobs? it's a good baseline' Gregg [I]

> 'There's the risk of when you come to uni, you just literally just do the course and stuff. But, realistically, if you just do the course, you probably are, on a scale of people who have been to uni, you're probably at the bottom of it' Scott.[I]

Above, Mel said that there are *'millions of people'* with degrees, all whom need to show employers *'something extra'*. Gregg used the expression a *'flat'* degree to indicate the position of the qualification as a *'foundation'* or *'baseline'*. Scott acknowledged the risk of not accommodating the employer gaze in his action; just doing the course would have *'literally'* placed him at the bottom of an imagined competitive *'scale of people'*. Despite recognising the degree as essential, the students oriented to a devaluation that has taken place through the number of people who hold this capital. Rather than a gateway to graduate employment, a degree was understood as a starting point and not conferring an advantage in graduate employability. As the students spoke, they consistently pointed to their HE experience as a collection of capitals beyond academic study, in ways which illustrated the complexity of the graduate labour market. Echoing the earlier theme, these discussions were cast beneath the employer gaze, rather than valuing a rich HE experience as fruitful work on the self.

By building on their education as a foundation rather than an endpoint, the talk illustrated the students' recognition of developing their employability as a portfolio of skills. Their identification of the need to develop skills outside academia troubled the assumptions of a linear relationship between university education and employability.

> 'I would say it's about building a skill set. So, yes in a way employability is related to academia. But, if that were true, that would suggest that people that don't have that, don't get a job, which is also not true. Because that's not what we view.' Mel

> 'Now it's a bit of a shame really, cuz you could be someone who is really sociable, who has loads of the skills they want in a job but lacks partially on the academic side and if you haven't got the academics then you're not gonna be considered even though you have all the other aspects to do it...' Toby

> 'Yeah, in the sense that how well you do your [academic] work reflects how employable you will be, but then again the things you do in university might not be relevant' Vicky [I]

Earlier in the focus group Mel identified employability as the *'purpose'* of a degree, but in the extract above, she introduced ambiguity, saying that employability was only related to academic study *'in a way'*. Her observation of people gaining employment without degrees challenged the automaticity of graduate employment, and therefore the value of a degree. Toby also responded to this sense of disparity between academic achievements and desired employability attributes. He designated the contemporary possibility that one can have *'loads of skills'*, but yet not be employable because of the lack of a degree as *'a bit of a shame'*. In another group, Vicky offered the opposite dilemma, whereby a degree might not equip students with relevant work skills. She argued that *'in a sense'* her degree is related to employability, but *'then again'* some of *'the things'* might not be relevant. These examples suggest that although the 'portfolio approach' offers the potential for a comprehensive set of achievements, it is also a troubled space where academic and employability skills may be in competition.

Despite the ambiguous relationship between academic attainment and employability, students' measurement of employability capital was nonetheless related to grade outcomes, as the third sub-theme of 'grade value' illustrates.

Grade Value. Within understandings of an undergraduate degree as a form of cultural capital, grade outcomes are measures of that capital. The participants' talk reflected

this notion, with students consistently linking degree classification and employability. However, there was a tension between the competing demands of high academic attainment and the need to gain other skills and experiences.

> 'At the moment, my priority is to get the grades because I wouldn't be here if I didn't think that getting a good degree is important so like I might try and get some more experience, but it's not a priority for me' Sarah [I]

Sarah prioritised getting a good degree, but establishes a cost/benefit calculation to this strategy, whereby she must forgo *'more experience'*. Linking with the earlier portfolio theme, Sarah illustrated an inherent dilemma, since opting to work towards a *'good'* degree, was at the expense of more experience. Therefore, while Sarah's grade goal provided the motivation to learn, it concurrently legitimised resistance towards a broader approach to employability skills. Other talk about grades indicated the complexity of competing understandings of employability and education.

> 'It's that sort of certain level of education is important for some jobs depending on what you wanna do... but I think personal characteristics also matter cuz some people might not be, might not get like the best grades but then their mind can prove oh yeah they can work hard' Lorraine

> 'Now it's a bit of a shame really cuz you could be someone who is really sociable who has loads of the skills they want in a job but lacks partially on the academic side' Toby

Harking back to the notion of distinguishing oneself from other graduates, the students asserted the value of *'personal characteristics'*, and many resisted the importance of grades to employability. In the extract above, Lorraine acknowledges the value of a *'certain level'* of education, but then again, but also identified the ability to *'work hard'* as essential to employability, but as distinct from academic attainment. Toby also separated the capitals of academic attainment and other valued skills, in his

highlighting the 'shame' if someone had *'all the skills'*, but lacked a high academic grade. These extracts demonstrate that while high grades are valued, they are also understood as separate from other skills.

This tension between academic work and employability skills may play out in the students' motivation to act towards their learning. In the extracts below, grade as a capital was discussed in further ways which indicated disengagement with developing academic knowledge or learning skills.

> 'All of us this year know that it [grade] doesn't count. So our objective this year isn't really to learn everything and be overly interested in it. It is literally just to get above that 40% mark' Mel

> 'I just came to do it a little bit effortlessly, again I'm just really lazy, so if I do something with less effort and I start to get some decent marks for it I go with [it]' Gregg [I]

Mel normalises a lack of engagement in academic work in her statement that *'all'* of the students know that first-year grades do not count and so they do not really need to *'learn everything'* or be *'overly interested'*. Gregg said that he is *'lazy'* and came to university to progress a *'little bit effortlessly'*. These extracts trouble the notion that students recognise the discipline-specific curriculum as important for employment development or for self-development. Not only are they not working towards employment goals, but neither are they engaged with understandings of HE as a site of personal growth.

While talking about what grade outcome means to employability, the notions of entwining grade outcome, present engagement and future employability were rooted in much earlier educational experiences. The students acknowledged the importance of grades to employment but often identified themselves as having low or inadequate grades, as possessing a reduced capital.

> 'It's good to have all those grades … because if you've got like F's and U's and have failed everything and you either aren't that smart or you just haven't tried hard enough, for an employer that's quite important' Jenny

> 'I had a lot of teachers looking down on me as well, and they were saying oh my god what's the point in you being here you may as well go out and get a job' Will

> 'I've already let the family down because my granddad went to Cambridge and this whole, I'm not going to live up to that one.' Calanthia

In the extract above, Jenny located her school grades as a capital which represented her future effort and ability, because for an employer *'that's quite important'*: Not achieving the grades means you are not that *'smart'* or you *'haven't tried hard enough'*. Students highlighted a dilemma between high grades and graduate employment, and a stigmatised entry to the workplace as a result of low academic attainment. Above, Will explained the devalued cultural capital of entering employment directly from school, talking about school teachers who looked down on him, he said that they said *'oh my god'*, what is the *'point'* he might as well *'go out and get a job'*. In another interview, Jela echoed this distress saying there is a *'massive stigma'* to grade outcome, a point also raised by Calanthia, who talked about letting her family down because she would not *'live up'* to the grade expectations of a prestigious institution.

Students' talk about grades encompasses understandings of grades as valued employability capital and as determining pathways to employment. But dilemmas and tensions arise from experiences as first-year students, for whom academic grades *'don't count'*, and for students who recognise the importance of grades to employability, but who identify as lower achieving. This theme reflects understandings of academic attainment and employment-skills acquisition as separate, competing, and sometimes conflicting. The separation of these types of capital can lead to students engaging in

one at the expense of the other.

The theme of 'academic study', comprising of the subthemes of 'employer gaze', 'portfolio approach', and 'grade value', demonstrate the normalisation and naturalisation of employability within HE. However, the students' talk also revealed the contradictions and dilemmas inherent in the coupling of academic work and employment that deeply troubled their lived experience. Students have to direct their learning in complex ways to gain different types of employability capital. Participants recognise an ideal of concurrent engagement in academic work and extracurricular activities; but the themes of 'portfolio approach' and 'grade value' indicate that students make a distinction between achieving high academic grades at the expense of developing a broader employability profile, and being a lower performing student who orients him or herself towards skills acquisition, and forgoes striving for academic excellence.

The theme of a portfolio of employability skills leads into the second superordinate theme of 'work experience', where students discussed the practicalities and complexities of acquiring those skills.

6.3.2 Work experience. A second important capital of undergraduate employment is participation in work experience. As outlined in chapter 2, the literature suggests that increasing numbers of students are engaging in some form of work experience (Elias & Purcell, 2004). Despite evidence that employers use the 2:1-grade boundary to select graduate candidates, engagement in work experience is valued by employers over and above academic grades (Bennett et al., 2008; Branine, 2008). These findings mirror the pattern in the thesis' data of dual and sometimes competing understandings of both academic work and employability skills as essential 'entry tickets' to graduate

employment (Weiss et al., 2014). The participants' talk about work experience echoed the literature, with work experience understood as an integral part of higher education. All of the students incorporated a need for work experience into their understandings of employability.

> 'Nowadays, I think it's better to have work experience, even if it's just volunteering before you get a job... I think at present it's really quite crucial.' Lucy
>
> 'Employers always want you to have previously been employed' Shae

In the extract above, Lucy asserts the fundamental importance of work experience to graduate employment, conveying a sense of the demands of the current labour market when she said,*'nowadays'*, differentiating it from the past, it is *'really quite crucial'*. Calanthia echoed this belief, *'doesn't matter what you've done, as long as you've done something'*, an expectation from employers which Shae agreed is *'always'* present. Interestingly, although all participants concurred on the value of work experience to employers, there was considerable complexity in their talk about lived experiences of work experience. As they negotiated understandings of employability as comprising of both academic and work skills, the role of the work experience capital switched from an evidence of employability to an opportunity for learning, notions which are unpacked through themes of 'know-how', 'growth', and 'roadblocks'.

Know-how. While earlier themes positioned academic learning as a foundation for graduate employment, participants' narratives elevated work experience as a site of work on the self. Here the students articulated their appreciation for learning through doing or know-how. Know-how comprised actions that build skills around tacit knowledge, which included notions of knowing how something is done (Lubit, 2001). In contrast to the nonlinearity of academic learning as a contributor to employability, the

students saw a clear value in knowing how to 'do', a capability which can be achieved through participation in work experience.

> 'If we look at the human as a model, then working is a really big part of it, just as is eating and making food. And we don't know food until we learn how to make food and we do it all over again it's the same with working' Andi

> 'I think, you can learn all the theory and the knowledge, but you really need to be out there and sort of doing it, you know, first hand' Ruby [I]

In the example above, Andi uses a metaphor of eating food to locate working as a *'really big part'* of his development as an undergraduate student. He asserted that something cannot be known until it can be done, *'we don't know food until we learn how to make food'* and identified a cycle of reflection and repetition, in a choice of expression with aligns with models of metacognition. Ruby also evoked know-how, she *'really'* needed to be *'out there'* doing it *'first hand'*. Not only do these expressions illuminate the status and understandings of work experience, but they also provide a useful reflective backdrop for guiding the decisions students make about where to place their action. In the context of competing academic and experiential pathways to employment, know-how offers more concrete evidence of skills and employability. In addition to its unequivocal capital in labour market, students also understood work experience as an opportunity for personal growth.

Growth. As the students unpacked their experiences, there was a real sense of their value for work experience as a space for maturity, learning, and growth, which is consistent with ideologies of experiential learning (Kolb, 2014). In several of the narratives, work experience precipitated a valued transition from youth to adulthood.

> 'Its helped me grow up' Lorraine

> 'It was really good in giving me a reality check I think, more than anything else' Jela

> 'The main aim is to get money, but work experience is just kind of a helpful tool I guess to get you started, and it's quite fun' Rebecca [I]

Above, Lorraine said that experience of work had helped her *'grow up'*, for Jela it has been a *'reality check'*, while for Rebecca it was a useful and fun *'tool'* to get her started. Work experience offered a space to learn how to *'keep their mouth shut'*, not *'kick off with your boss'*, *'run around'*, or spend too much time on their mobile phone. These aspects chime with theories of young adulthood as a point of transition for identity formation and development (Tajfel, 2010; Turner, Brown, & Tajfel, 1979). However, the work experience to which the students attributed their growth was often not at graduate level. For example, students worked in cafés, shops, and leisure establishments.

In the students talk, not only did growth take place through 'non-graduate' rather than graduate work experience, but often occurred through engagement in part-time jobs. Despite the non-graduate nature of this work, the students were particularly positive about their work's contribution to their graduate employability.

> 'I think it [part-time work] definitely is useful; I think it erm, err it builds your confidence quite a lot, in terms of talking to new people' Scott

> 'It [part-time work] will teach you things that are about work that aren't necessarily academic… like timekeeping and how important it is to kind of keep to deadlines and what the urm kind of what the purpose of the employer and the business is' Sarah [I]

> 'I think in the workplace urm being in an office urm because just general manners in the workplace, urm , interacting with other colleagues, that's probably what I learnt most' Vicky [I]

In the example above, Scott said that working part-time had *'definitely'* been his

confidence builder. Sarah's engagement in work has *'cemented'* her academic content and facilitated skills like timekeeping and deadline management, while Vicky has worked in an office and valued learning *'manners'* and *'interacting'*. As such, in this talk, the students spoke more freely and at ease about a broad range of skills they perceived as having developed through work experience. The students' perceptions can be understood as a knowledge gap, whereby they do not recognise the distinction between graduate and non-graduate employability skills. Conversely, it may be that valuable learning takes place in a non-graduate employment setting, which is not as readily recognised by society or employers.

Students recognised valued knowledge and growth through work experience, but they also described barriers, both social and personal, to their access to and engagement in this capital.

Road blocks. The uniting of know-how and growth would indicate a seamless relationship between the HE experience and work experience, but as outlined in chapter 2, there are concerns in the literature base about who has access to work experience, particularly for marginalised or economically disadvantaged groups. Many of the narratives provided by students indicated that access to work experience is not equal. The students identified a central paradox, in that experience and skills were needed in order to gain experience and skills. The students spoke about their frustration at needing know-how, before accessing know-how.

> 'That [no experience] is the biggest pain and puts you off actually wanting to go and get a job cus you can't find really basic jobs like working in a spar' Jenny

> 'It doesn't take much to learn how to be a waiter or a waitress, it's not easy, but it doesn't take much to learn it, but they don't want you, so even jobs like that now want experienced

people.' Jarvis [I]

Jenny conveyed the scale of this barrier when she said that not being able to access work experience was the *'biggest pain'* which *'puts her off'*, even in the context of *'basic'* jobs in Spar. Jarvis echoed this experience, even to be a *'waiter or a waitress'* demands you to be *'experienced people'*. In these extracts, the focus shifts from the employer acting as a motivator for action, and towards a sense of futility even in the context of modest aspirations. The employer gaze has become unsympathetic and may not be supportive of the young and inexperienced, whose academic learning does not balance out perceived deficits in experience.

The data suggests that while the students value work experience, it is not taken as a given that they will be able to access that capital. This troubled relationship is further unpacked in the interesting finding that students often referred to school as the time when employability is gained or lost, with many of the narratives linking with 'wrong' or inadequate early decisions forming a barrier to graduate work experience and career aspirations.

'work experience, which is something I feel cheated out of really cause, back in school I signed up to do a work experience, but it end up getting cancelled ... it's a virtual, urm important, thing in my life really cause ever since then I've been applying for jobs, and that's the thing that's been letting me down' Will

'Too young then to be kind of taken seriously in the workplace.' Scott

Here Will talked about being *'cheated out'* of work experience in Year 10, aged approximately 14; this is a disappointment which he perceived as restricting his current opportunities, *'ever since then'*, forming a lasting barrier to his employability. Scott also faced challenges to finding work experience; he attributed this obstacle to a school placement which didn't go to plan because he was *'too young'* to be taken seriously.

These narratives illustrate the capacity for the self-development opportunities of work experience to disappear, forces of capital which may sit beyond the students reach or control.

The theme of 'work experience, comprising of the subthemes of 'know-how, 'growth, and 'roadblocks' demonstrated the students' recognition of the high status awarded to work experience as a capital of employability. The students also understood work experience as a space of learning and personal development, reflecting the contradictions and dilemmas present in their talk about academic study. But inherent in this capital was the knowledge that this value may not be available to all.

The theme of 'work experience' presents two key findings. Firstly, the students spoke at length about the value of their part-time, non-graduates jobs towards their employability. However, skills from 'non-graduate' work experience may not be valued equally by employers in comparison with skills from 'graduate' level work experience (Reddy, 2006). In a context of this hierarchy of worth, solutions may lie in changing the sorts of roles which students undertake. Alternatively, there could be wider recognition of non-graduate employment and experience as a site for maturation and the development of transferable employability skills. These findings indicate an area in which the voices of students are not being heard as they express where they experience valued and valuable learning.

The talk about work experience further manifests a troubled relationship between academic and experiential employability. Students readily talked about their skills development in the work experience context. They gave concrete examples of the skills they acquired, such as timekeeping and professionalism, and yet they did not articulate the transferable nature of these skills. This complex relationship suggests that while students acknowledge the value of academic study to employability, it is through

engagement with work experience that the students perceived accessing their skills development. When asked about employability in general, the students preferentially talked about skills acquired through work experience, rather than those developed through their academic study.

Students' talk illuminates the potential for gaps in understandings about where, within the work experience capital, the students should focus their energy; but also, the potential for misunderstandings from employers about the ways in which young people access the work experience capital. Understandings about where to direct action is also in the third superordinate theme of 'careers guidance', where students discussed the support they needed or received to achieve their career aspirations.

6.3.3 Career guidance. A final capital of engagement with undergraduate employability is careers guidance. In a landscape of the shifting understandings of graduate careers, pedagogic practices often focus on skills related to self-presentation. These actions include curriculum vitae (CV) support, careers counselling, interview practice, and guidance on the development of career goals (Helyer & Lee, 2014; Knight & Yorke, 2002). The participants in this study talked about such career guidance actions and the role of careers guidance to employability, but the value of careers guidance was a more abstract concept to the students than the previous types of capital. They recounted that non-graduate work had been acquired without the need for careers guidance, or that career guidance was something that they would access in the future in relation to graduate employment and aspirations.

> 'Most of the jobs that I've got have been through quite informal measures you know like my mum will say' Jela

> 'I don't think I've done that much yet because I don't have that much idea about what I

want to do' Vicky [I]

In the examples above, Jela explains that she does not need careers guidance because her jobs to date have been achieved through *'informal measures'*, but neglects to include her graduate aspirations. While Vicky has not *'done that much yet'*, in the context of careers guidance, because she does not know what she would like to do. This talk indicates that the students do not recognise the value of careers guidance in the early stages of graduate career planning. Neither do they differentiate the type of guidance they need for graduate career aspirations compared with non-graduate employment pathways. As with the previous themes, students' talk revealed considerable complexity in their understandings and experiences of career guidance, which formed the sub-themes of 'career path', the 'quantifying CV', and 'knowledge networks'.

Career path. While most of the students disclosed very tentative or no career goals, having career paths were still a salient issue. All the participants felt under pressure to have a career goal. Lucy described a career goal as the *'norm'* while Mel said it is *'sort of innately ingrained within you'*. A lack of a career goal meant that the students also lacked a focus for their employability actions, and saw themselves as falling short of a normative expectation.

'[You're] disadvantaged, or they think that you are more disadvantaged because you don't know what to do with your life' Andi

'It's difficult for younger kids to know exactly what they want to do I think ... it's a bit wrong really that you don't know what to do, and you might be struggling then, cause, of course, any, the older generations everybody knew what they wanted to do since they were four' Toby

Andi spoke about how being uncertain about *'life'* makes you *'disadvantaged'*.

Elsewhere in the interview, Jela suggested that this quandary produced *'a lot of pressure'*. As the students raised their concerns and objections to the cultural expectations of this capital they often referred to a generational difference. Above, Toby argued that for *'younger kids'* like himself it is *'difficult'* and also a *'bit wrong'* to be under pressure to decide on a career path. He contrasted this with his parents and grandparents' experience of following traditional, linear pathways into work. The perception of the more clear-cut options and experiences of older generations were summed up in the decisiveness of their choices, *'everybody knew what they wanted to do since they were four'*.

For the students, participating in HE was often a way of circumnavigating the deficit created by a lack of a career goal, by buying time and developing skills in order to make a choice of career.

> 'I've got no idea [what I want to do], which is partially why I'm doing this degree because it gives you all the transferable skills ... all these different kinds of skills that are quite useful for then taking into a job' Ruby [I]

> 'Unless you've erm, say taking a course, like medicine, which is dead on... Like even when you have got a vague idea in your head, I think you've got to keep an open mind about it.' Scott

In the examples above, Ruby spoke about how she selected her degree because it *'gives you all the transferable skills'*, an employability capital she values in the context of *'taking into a job'*. Scott also maintains a positive sense of the self, through his support of keeping an *'open mind'* he can value his approach of having just a *'vague idea'* he considers this in contrast to medical students, a traditionally more secure vocation, whom he called *'dead on'* in an expression which retained the connotations of a more lucrative field. The students negotiate tensions between HE as a route into

graduate employment and HE as a site of personal exploration and development.

In their attempts to bring these two disparate understandings of HE together, students talk about the CV as a numerical representation of their efforts in the subtheme of 'the quantifying CV'.

The quantifying CV. The students identified a priority action as generating a CV, but in the absence of clear recognition of their learning towards graduate employment, their CV is constrained to quantitative expressions of their employability. In their presentation of the self, the students' action shifted once again away from engagement with employability capitals as a learning opportunity and towards a form of evidence.

> 'If my CVs got two things on and yours has got ten, you're going to get put on the pile, and I'm not' Lily

> 'Like a degree is good, but essentially it's like one like it's a couple of words on your CV. But then if you have say, six other bullet points, from other stuff that you've done at uni, and outside, it's a lot more helpful' Scott

Students demonstrated their engagement with employability activities in their talk, echoing their portfolio approach to employment skills, but valued the quantity rather than the quality of CV items. In the examples above, Lily evoked competitive recruitment processes. In a scenario where there is a *'pile'* of applications, her *'two things'* would automatically be inferior to an imagined competitor who has ten. Scott echoed this dilemma. Linking the earlier tension comparing the competing value of academic study with practical experience and skills, he said that on a CV a degree is good, but it is *'one'*. It is just a *'couple of words'*; whereas *'other stuff'* enables more *'bullet points'* which is a lot more *'helpful'*, again emphasising the value of quantity. Quantification is also bound up with ideas about portfolios of skills and

self-development, but an emphasis on quantification devalues university degrees in the context of employability; they shrink down to a single item on a list.

While the acceptance of the CV as a capital of value was universal, the students talk also contained a further dilemma related to the presentation of the self.

> 'I always felt like if I write this about myself am I making myself sound too good, and I'm probably not that good' Lorraine

> 'I don't personally enjoy writing CVs and job applications. Just because I think writing about yourself...I really don't enjoy it. Mainly because it feels really egotistical' Scott

> 'It's quite stressful I think. Whenever you have a CV thing. Because you can do it right, and someone will say, 'Yes, that's great, keep it like that' and then you'll show it to someone else, and they would be like, 'Rubbish, do it again" Mel

In the example above, Lorraine talked about writing a CV, but being uncomfortable about describing herself as *'too'* good. Scott resisted writing about himself, providing the rationale that it *'feels really egotistical'*. And Mel evoked an imaginary scenario to illustrate the subjective way in which CVs are evaluated, potentially producing a *'stressful'* disjuncture, where one person says *'great'* and the other says *'rubbish, do it again'*. The narratives illustrate that while the students engage in activities which will facilitate their presentation of the self, this action is by no means simple. Students navigate issues of authenticity, social and cultural dilemmas created by the need to write positively about oneself without inhabiting dispreferred, boastful identities. Students' talk thus reveals further explanations for non-engagement in careers guidance as students negotiate competing understandings of academic study, employability, work and social identities.

Having established that the notion of a career path and the generation of a CV are important capitals of employability, the question is raised about whom the students are

accessing to inform their understandings.

Knowledge networks. Academic university staff see careers guidance as distinct from academic study (Morrison, 2013), and most universities have a dedicated careers service which students are expected to access for information and advice. However, the students in this study drew on a variety of social agents for support, signposting, and advice. As the students unpacked the capital of career guidance, much of their talk drew upon earlier school experiences. This early advice was often perceived as a disjuncture in cultural capital as the transmitted knowledge was perceived to understand the rules of the employability game inadequately.

> 'All of their [teachers] things that you get on the list are things that are really irrelevant... like a florist or urm working on a cruise ship' Toby

> 'I'd never be a teacher because I don't want to, I couldn't teach I'm not good at teaching, I can't explain things to people ... I was like it's pointless for me ... she was like, well, recording what you like that's not such a good idea and I was like well maybe not, but I know what I want to do ... I had to sort of argue with her' Gregg [I]

> 'We had to like literally write our own letters and the post it to like different places where we wanted to work if we want to work in like a hospital we had to like apply to the hospital like by ourselves and like get it ourselves, our school didn't help us' Lorraine

Above, Toby recounted his attempts to access guidance support from his school teachers, who offer *'irrelevant'* suggestions that he work as a florist or on a *'cruise ship'*. He views this advice as irrelevant because it sits outside of the pathways he perceived as reasonable and failed to match his aspirations. Gregg recalled a teacher's suggestion of a career in teaching as a solution to his lack of a career goal, a deficit which was 'not such a good idea'. But Gregg recognised the mismatch inherent in this advice, arguing that advice was *'pointless'* for him because drawing on his skill

set *'he can't explain things to people'*, a presumed fundamental aspect of the teaching role. In the final extract, Lorraine also draws on early experiences. She said that when seeking work experience school did not help; they had to *'literally'* just write their own application letters. In these experiences, students recount that careers advice involved the application of broad, generalised principles ignored the students' individual needs. For Gregg and Toby, advice was aimed at correcting the deficit of no career goal, rather than of helping students evaluate their skills and preferences to develop their employability. The students themselves recognised the unsuitability of the advice to their needs, desires and skill sets. These narratives suggest that while career's guidance as a concept is valued, and the students draw upon examples of their reaching out for guidance, these students do not perceive having received the help they desired.

As the discussions shifted towards more present-orientated action, the students located academic staff as a legitimate authority in their understandings of career guidance. These narratives often included some element of specialist knowledge, information which resonated with the students' worldview, interpreted here as insider knowledge.

> 'It [learner journey] needs quite a lot of sort of direction from personal tutors and people like that, to what you want to do' Vicky [I]

> 'I remember being at school and they say to you, ah yeah, just write out a CV and go round shops dropping them off. Whereas, the lecturer was telling us like even a simple questionnaire to fill in there's a technique to them like the way the questions have been asked like they just reword things like. I was kinda suspecting that' Shae

> 'I think the general assumption is everyone just wants to show off their grades whereas [lecturer] was saying, you just have to sell yourself, tailor it to what they're actually looking ... that look like I'm the ideal person for this' Will

For Vicky, developing employability required *'a lot'* of direction from *'personal tutors and people like that'*. Shae contrasted her lecturer's expertise and specialised *'technique'* with earlier negative experiences in school which gave no direction. Her lecturer revealed knowledge and skills she *'suspected'*, indicating that she doubted the apparent simplicity of advice to *'just write out a CV'* and distribute them to employers. Her lecturer confirmed the complexity she sensed and affirmed the need to develop specific skills. Will also evoked the specificity of his lecturer's advice who acknowledged an individuality that extends both towards the student and the employer, *'tailor'* yourself, tell the employer *'I'm the ideal person for this'*. The academic staff give a formula that could buffer against deficits, but techniques towards a production of the self that is authentic, not *'showing off your grades'*, but demonstrating a more rounded persona, *'the ideal person for this'*.

Students' talk about career guidance, as with the other themes, revealed tensions and complexity which they, and HE institutions, must navigate in the development of employability. In the first subtheme, career pathways, students, most of whom did not have a career plan, identified distinct processes relating to employability and higher education, which gave rise to a dilemma. A degree was understood on one level as a process of self-discovery, which would eventually contribute towards an appropriate career pathway, but in another sense, the students expressed the immediacy of needing a career path in order to direct their engagement towards employability.

6.4.0 Conclusion for Study 2

Study 2 involved a qualitative template analysis of focus group and interview data from twenty first-year undergraduate students, yielding rich themes relating to students' talk about employability capitals. A template was formed of the superordinate employability

capitals of academic study, work experience, and careers guidance (within which were incorporated students' talk of the fourth employability capital of transversal skills), analysis of which generated sub-themes with which to understand the phenomenon further and address Research Question 2, how do first-year students understand the different employability capitals?

This analysis showed how students negotiated complex understandings of employability capital, revealing that academic and employability goals and action were not always in alignment, producing paradoxes and dilemmas for student engagement with work experience, and complexities around planning for careers guidance, in the present but especially towards a future goal of graduate employment. The key findings relating to academic study, work experience, and careers guidance are outlined below.

6.4.1 A troubled relationship between academic study and work experience. A superordinate theme of academic study was explored through the subthemes of an employer gaze, a portfolio approach, and grade value. The students explained employability and education as fundamentally tied together, graduate employment being for them the main purpose of education, with links between the two normalised and naturalised. But there was also a duality to this talk, with aspirations for high academic grades seen as in opposition to the learning demanded by broader employability development. The separation of employability and academic study produced dilemmas for all students relating to where they directed their efforts towards and showed the potential to devalue their academic experience. As the students talk devalued education as self-development, the students looked outside of themselves for a measure of their employability. They talked of shaping their employment and educational decisions upon an employer gaze, an employer who demands both

academic excellence as well as extensive work experience and skills. But under the employers gaze the students focused on the quantification of their efforts rather than the quality of their experience. As such, through contradictory and ambivalent narratives about the degree as a capital of employability, students devalued education for education's sake as a form of self-development, and neither did they understand education for employability as part of a long-term investment in the self. And, while the degree was a necessity for graduate employment, the students needed to do more than 'just' a degree alone.

By students' troubling of the relationship between a university degree's role in relation to a portfolio of employability capitals, employability was a contested space whereby academic and employability skills were seen to be in competition, and where engagement would not automatically result in a lucrative reward. Such troubling leads into the second superordinate theme of 'work experience', where students discussed the practicalities and complexities of acquiring the skills and experience demanded by employability.

6.4.2 Troubled notions of valued work experience. A superordinate theme of work experience was explored through the subthemes of know-how, growth, and roadblocks. The students explained participation in work experience as a necessity and norm of the undergraduate experience; with the students' notions of work experience mirroring that of work experience holding the status of an 'entry ticket' to graduate employment (Weiss et al., 2014, p.788). Importantly, the students described their part-time employment as an important incubator for work on the self, maturation, and the development of employability skills. The doing of 'non-graduate' roles provided a space for maturity and growth which was consistent with ideologies of identity

formation (Tajfel, 2010). However, within this understanding, students' talk also reflected tensions and dilemmas arising from students', universities, and employers' valuing of work experience.

Work experience was normative and valued through its capacity to contribute to maturation and learning, but the students' talk also revealed that the benefits of work experience, or the benefits of certain valued types of work experience, are not available to all. The students highlighted the paradox that students needed to have work experience in order to gain it. Such talk positioned employers as gatekeepers who are unsympathetic and unsupportive of the young and inexperienced. The dilemmas and unequal access in students' talk challenged notions of university students as well-resourced individuals who must be lacking in ability should they fail to achieve employability (Allen et al., 2013; Paisey & Paisey, 2010; Stevenson & Clegg, 2011). In students' troubling of the notion of work experience included concerns about what actions constitute value, but also by whom that value is ascribed, and furthermore who can gain access to this action.

By troubling understandings of the work experience capital the students explained work experience as a necessity for graduate employability but they also outlined for pathways to opportunity with are fraught with challenges (graduate and non-graduate). Such complexity leads to the third superordinate theme of 'careers guidance', where students discussed who and what operates to guide them in navigating the employability landscape.

6.4.3 Complexities in careers guidance. Careers guidance was explored through sub-themes of a career path, the quantifying CV and knowledge networks. The students' talk about careers guidance was more abstract than the other capitals, overall

it was reflected that the students lacked imperative to engage with explicit careers guidance activities and viewed such action as for the future. One way in which career guidance action was explained as problematic was through talk which located the students as caught between the normative expectation of 'knowing what you want to do' versus the alternative discourse of HE is a space of personal exploration. Most of the students did not have a clear career aspiration and they used this to justify their lack of engagement in employability guidance practices; actions that paradoxically may help them to develop their graduate career goals.

The curriculum vitae was also identified as an important, but contested, aspect of employability; the CV was viewed as providing the students with a mechanism with which they could quantify and evidence themselves in a competitive graduate labour market. But rather than any nuanced appraisal of self-development, the necessary information was restricted to 'how much' the capital would contribute to their CV. Furthermore, in their talk about CVs, students wrestled with concerns about being inauthentic through a 'packaged' representation of the self that could mitigate against engagement in this capital. Such findings also link with understandings about the import of authenticity to employability as outlined by the literature (see Brown & Hesketh, 2004). The students also spoke of more positive experiences from informal networks, and, on occasion, included accessing 'good', 'insider' or specialist guidance from academic staff. But such talk further opened up questions about sources of support for less networked students and burden upon academic staff to fulfil guidance roles which they may not automatically hold expertise for.

Students' talk about academic study, work experience, and careers guidance demonstrated that engaging with graduate employability is complex and may be contradictory. Dilemmas exist between competing understandings of the

value of different capitals, and rather than experiencing employability in HE as harmonious, students negotiate past experiences, multiple identities, and issues relating to developmental maturation. The implications of the complexity integral to understandings about employability capital are outlined below.

6.4.4 Implications. Study 2 holds implications for our understandings about employability capital. The ways in which this study informed the literature base and for intervention are addressed comprehensively in chapter 8. In the following section, the implications for the next study in the thesis are outlined.

A basic premise of HE education is that students are self-regulated learners who are motivated and interested in engaging in their academic discipline and wider university experiences. Study 1 evidenced the explanatory power of an SRL framework in relation to student engagement with the employability capitals of degree classification, career development support and transversal skills, but not work experience. Overall SRL was important to employability engagement; but unexpected findings between SRL and work experience, and academic study and the broader employability capitals suggested greater complexity and perhaps dynamism than the tested model encompassed.

The qualitative template analysis of Study 2 revealed nuance, complexity, and novelty in the student voice and experience that enabled more detailed understandings about engagement with the employability capital. The analysis revealed tensions between academic study and broader employability, a value for work experience but difficulties in access of opportunity, and problematised relationships with career guidance whereby students resist engagement towards a future goal but also do not fully embrace employability as a commitment to self-development. Here, lived experience of uncertainty and constraint conflicted with both traditional expressions of a hierarchical

and linear process and with the notion of the fluid graduate identities or protean careers (Hall, 1996; Nystrom, Dahlgren, & Dahlgren, 2008).

Such barriers the students encountered as they pursued prescribed pathways to graduate employment raised further questions about HE and meritocracy. For example, that the value upon which students value their part-time jobs as sites of growth and development was off-set against their challenges in obtaining graduate-level experience. The unexpected relationships in Study 1 and the students' implicit understanding of their access and lack of access to different types of employability capital in Study 2, demonstrated the utility of Bourdieu's notion of capitals in understanding how the concepts that constitute employability play out in the context of personal and social factors. The illusion of a level playing field denied the nuanced, multiple, and contradictory employability identities that were available to students, and raised questions about how these identities played out practically in students' engagement with employability. Such thinking lead to the rationale for exploring identity as a mediator of the SRL process which is further outlined below and is addressed by Study 3.

6.4.5 Limitations. Study 2 yielded useful findings which explained the complexity of ways in which students make sense of the capitals of employability. But, there are acknowledged limitations to the study.

Firstly, a self-selection bias based on engagement with employability, willingness to participate in research, and the capacity to attend is recognised. Employability and concerns about graduate employment can be an emotive topic for students and thus may influence a student's willingness to participate or disclose experience. Equally, there is a body of literature which suggests that students can be disinterested with employability, particularly at the beginning of their HE journey.

Building on this limitation, chapter 2 explained that understandings of employability differ on a multitude of dimensions, including institution attended, discipline, student demographics, and employment landscape. The thesis orientates itself towards the employability needs of standard-entry students, yet it is acknowledged that even within this majority group there may be considerable differences in the demands of graduate employment. Therefore, the themes do not seek to speak for all experiences of employability, and instead, provide a forum for the student voice which is a 'snapshot' of time and place. Also, the analysis yielded salient themes provoked by a card-sort activity and organised using a quasi-deductive template. A different interview schedule may have produced alternative themes. It is notable also that the students did not always readily understand the sentiment of the card-sort statements. For example, a statement which said 'social engineering', responding to a critical approach to employability, was often understood as social friendship. However, since the discussions were intended to be broad and spontaneous, the cards were retained as they encouraged conversation among the students in their struggle to understand and make sense of the issue at hand.

Finally, since the study is a part of a doctoral study, the data was coded and themed by an individual researcher. All studies are vulnerable to the implicit bias of the researcher, who performs the analysis from their unique cultural perspective. In response to this problem, a supervision team reviewed the interpretations and extensive extracts are provided to illustrate the interpretations. A reflexive section is included in chapter 8 which explores some of these dilemmas further.

6.4.6 Further work. Theoretical frameworks in Studies 1 and 2 confirmed the richness and complexity of employability engagement and indicated the dynamism and tensions this complexity produces in the student experience of employability. But while

the findings of Study 2 provided important and novel support for student understandings about employability capital, they also indicated layers of complexity that would be unlikely to be fully addressed with quantitative measures used in Study 1, or even the broader template analysis of Study 2.

Study 2 outlined the potential for differences in value of employability capitals to interfere with students' decisions about whether or not to engage with the process of employability engagement. Academic study was valued as a signifier to graduate employer, but devalued as a learning experience. Work experience was valued as a site of growth and development, but understood as not accessible to all. Students valued having a career goal and accessing their informal network for advice, but professional careers guidance lacked presence and was viewed as a future pursuit. Thus, while the students perceived employability as a key rationale for their studies, they also illuminated the power structures implicit in the entwining of education and employment. The cost to the students was either a negative employability identity or negative academic identity, both of which could adversely affect their self-efficacy and attainment in both areas. As such, pathways from SRL to employability engagement were disrupted, through adoption, resistance, and rejection of employability capitals.

One way in which the field has tried to accommodate the complexities of employability capitals is through the graduate attributes movement, which seeks to move away from narrow models of employability skills acquisition and towards graduate or pre-professional identities (Cutts et al., 2015; Pisarik et al., 2013; Tomlinson & Tomlinson, 2017). Such thinking draws on SRL and the process approach to employability underpinning this thesis and supported by Study 1. It acknowledges the importance of identity in mediating engagement with learning action and also points to the importance of exploring the role of identity in students' engagement with their

learning towards employability. A student's cognitive capacity for learning alone is not sufficient to predict action (Schraw et al., 2006). It is entirely possible that a student is very intellectually active, but not towards action which contributes directly to their employability. Therefore, if strategising learning is related to employability in complex ways, then some students may struggle to engage with employability capitals irrespective of their underlying ability to regulate their learning.

The findings of Study 2 illuminated the ways in which students are active towards their employability engagement, strategically balancing academic study and broader employability engagement in alignment with their available resources, for example. The richness of the talk about capitals among first-year students pointed towards the value of exploring the experiences of students who are coming to the end of their studies, where they can reflect back on their learning action towards employability when the pressure of graduate employment is omnipresent. Such an aim demanded a more idiographic method to explore lived experience, identity, and sense-making in the context of students' engagement with employability. In Study 3, the role of identity and how it plays out in how students integrate understandings about employability capital into learning strategy informed Research Question 3 and shaped the decision to use IPA to explore identity as a mediator of regulating learning towards employability capitals with a small group of final-year students towards the end of their HE journey.

Chapter 7

Study 3

7.1.0 Introduction

Study 3 is the final study of this thesis and, in light of the findings of Studies 1 and 2, focuses on identity. This chapter reports the background, method and findings of Study 3, a qualitative study that used interpretative phenomenological analysis (IPA) on a single focus group with final-year students to explore how students make sense of engagement with employability capital. The structure follows the same pattern as chapter 6 in line with qualitative research reporting.

The rationale for focusing on identity comes from research on how identities can mediate students' engagement with practices associated with employability capitals, which indicates both the importance of identity to employability engagement, but also the potential for considerable complexity. Contemporary undergraduate students are under tremendous pressure to develop employability-related identities, because of their developmental transition into adulthood in the transition from school to university, but also in planning for a transition to the workplace. They need to direct their own goals, hopes and fears, values, beliefs, and norms towards graduate employment, but also to make sense of societal shifts in the role of higher education to graduate employment, notions of careers and a fluctuating market-led economy.

Holmes (2013) suggests that one way of addressing the complexity of preparation for graduate employment is through a process approach to employability. Chapters

2 and 3 reviewed the graduate attributes literature which identifies value in students having an identity orientated towards their future employment. For example, students with a future-orientated identity are more likely to make learning decisions which build positively towards their future career goal (Jackson, 2014b; Stott et al., 2014). However, there are a number of known barriers to employability identity development. These barriers include students' often narrow understandings about employability which mean they may struggle to articulate the characteristics of their pre-workplace identity (Moreau & Leathwood, 2006); difficulties in managing the multiple identities required of students across their personal, academic, and workplace spheres (Forrier & Sels, 2003; Stevenson & Clegg, 2011; Thompson et al., 2013); and that many students are working on developing graduate workplace identities prior to the experience of being a graduate in the workplace (Pisarik et al., 2013). Finally, the identity needs of a diverse student population may not be incorporated in dominant conceptualisations of employability (Allen-Collinson & Brown, 2012; Brown & Hesketh, 2004). Thus, while the graduate attributes movement may offer scope to move beyond a focus on employability capitals, more work is needed on how to best support undergraduates in building affirmative and productive employability identities.

Identity is a concept common to both process and position accounts of employability, through the graduate attributes movement, but also a concept common to the theory of SRL as providing a 'compass' for learning (see Boekaerts et al., 2005). Both SRL and the process approach to employability therefore highlight the importance of identity in mediating engagement with employability practices. The findings of Studies 1 and 2 point to the value of further investigation of the role of identity in students' dis/engagement with employability practices. Study 3 thus provides the opportunity to explore the relationship between identity and employability when the

salience of employability may be greater than for the first-year students in Study 2. The chosen analytic approach of IPA is in line with research that suggests that when people talk about personal experience and sense making, they also provide clues about their adopted identity and by extension, reveal activities which they are likely to engage in or resist (Watson, 2008). Study 3 thus responded to Research Question 3, which asked how do final-year students negotiate issues of identity around employability?

7.2.0 Method

7.2.1 Design. Three final-year undergraduate students who were completing their HE learner journey and preparing to make the transition to graduate employment were interviewed in a single focus group. The study utilised a semi-structured interview design mirroring the approach described in Study 2; this design yielded rich experiential data suitable for IPA and providing insights into possible employability identities.

7.2.2 Participants. Three final-year students, assigned the pseudonyms of Trudi (female), Nick (male), and Marco (male), were recruited opportunistically to Study 3. They were aged 20-21, identified as British, and were studying Psychology at a rural Welsh University. As with Study 2, more students signed up to participate than who then attended the focus group. However, since IPA is idiographic, focusing on individual rather than shared experience (see Smith, 2011) and the data collected was very rich and informative, the analysis was conducted on the single focus group. Such an approach to sampling is in alignment with IPA requirements (Smith, Jarman, & Osborn, 1999) and described further in chapter 4. The students who responded to the study were known to each other on their degree programme but had responded to the advertisements separately.

7.2.3 Methodological theory. IPA is a qualitative method which explores how individuals make sense of a phenomenon (Smith et al., 2010). IPA is an 'insider perspective', where lived experience supports deeper understanding about how people 'make sense' of their own 'life-world' (Creswell, 2013; Smith et al., 2010). Chapter 4 described how IPA facilitates analysis of identities which students have available to them to guide action towards employability within an SRL framework. Two further characteristics of phenomenology and hermeneutics warrant further explanation.

Phenomenology is central to IPA, referring to the systematic reflection of the sense making process. IPA proposes that there exists a 'real' material world, which is hard to get at and understand through the mind, particularly as the mind acts as a filter (Husserl, 1970). People attend to language and objects because they can be used as 'tools' to make meaning and understand relationships. Husserl (1970) proposed that the human mind is a constant receptacle of single units of experience, which then join to form a comprehensive experience. And, when people talk, rather than articulating intact experience, they are understood as engaging in a sense-making process through a natural predisposition to reflect and link together what they know about a phenomenon. As an example, the Curriculum Vitae (CV) may begin with a recognition of paper as an object and the written word as marks on that object. However, the unitary experience of a CV for the individual is based on many influences, for example, the value of paper, the age and literacy of the individual, past hopes, successes and failures, and the labour market. Therefore, what a CV 'is' can have no single objective truth. As a result of this complex interpretative process, what may start as a common object or event, becomes a sense making experience unique to a moment in time.

Hermeneutics is a second key concept of IPA. Building on the concept of sense

making, Heidegger, Stambaugh, and Schmidt (2010) proposed a state of Dasein, or 'lifeworld', which is a state of 'average everydayness' achieved through reflection, as people are 'doing' living. As such, experience is embodied, conceptualised as a chain of connection between our body, cognition, and talk (Smith, 2011). What aspects of an experience or object are important to that reality is influenced by a concept of intentionality. Thus, if a researcher asks about employability and the person talks of ice-cream, then the approach considers that those objects are relational to each other in important ways irrespective of any assumed rationality. Human logic is therefore presumed present, with people expected to contradict themselves as a normative aspect of the sense making process conceptualised as a chain across embodied experience, cognitions and talk. The phenomenological approach is useful when considering students' engagement with employability, since a student's understandings of the employability capitals would influence on their sense making processes towards what action or engagement is required.

But IPA also presents a methodological problem, if 'lifeworld' is idiographic and we, as researchers, are interpreting talk through our sense-making processes, then whose version of the world are we exploring? This issue is resolved through the conceptualisation of a double hermeneutic loop, where both participant and researcher are understood to be jointly engaged in sense-making practices (Smith et al., 2010). So, while phenomenology occurs naturally, facilitated by a human predisposition to make meaning, the hermeneutic action is planned and made sense of through the investigator's prejudices and judgements (Brocki & Wearden, 2006). IPA is therefore vulnerable to the bias of the researcher, through their unique cultural perspective, but while this is a limitation it is a risk that researchers can manage through adoption of techniques to shift perspective (see Section 7.2.8 where the techniques used to mitigate the risk of bias in

IPA are outlined).

7.2.4 Method of data collection. The method of data collection for Study 3 was focus groups. The review of relevant research methods literature regarding focus groups was given in the 'method of data collection' section of chapter 6; please see page 191 for details.

7.2.5 Procedure. The focus group procedure was identical to Study 2, and a detailed report can therefore be found in chapter 6 (p.194). In brief, the session included an icebreaker activity and the two card-sort activities outlined in chapter 6. Through this card sort activity, the students were asked to talk about how they engaged with employability. IPA was then performed on the transcript of the focus group to explore the participants' sense making and in doing so explored how identities were evoked, either explicitly or implicitly, in this sense making.

7.2.6 Ethics. The BPS Code of Human Research Ethics (2011) guided the ethical approach taken for study, all students provided informed consent, were fully debriefed, and had access to aftercare support if requested. See Appendix Section B (p.370) for details. Also, see chapter 4 (p.105) for the overarching ethical framework for all three studies, and chapter 6 for how this ethical approach was translated into practice for the qualitative studies (on page 196).

7.2.7 Method of data analysis. Study 3 performed IPA on focus group data analysed in consultation with IPA guidelines from Smith et al. (2010), in addition to specific recommendations for group analysis by Palmer et al. (2010). These are detailed below.

As a first step, the focus group audiotape was transcribed using the play-script

method, which included a verbatim transcription without detailed notation that was double-spaced with wide margins and line numbered (see conventions on page 196). This process facilitated an immersion into the data. Identifying details such as names and recognisable places were either removed or appropriately replaced. IPA guidelines recommend a process of flexible coding, from the 'particular to the shared', and also from the 'descriptive to the interpretative' (Smith et al., 2010, p.79). This convention was followed by firstly coding lines of data using thematic labels representative of the participant's experience and understandings, and then cycling through interpreted meanings and emergent patterns iteratively. A sample coding table is provided in Appendix E.1.0 (p.423).

The IPA convention of separately analysing participant transcripts is problematic for focus-group designs. In response, the analysis drew from a set of structured questions developed by Palmer et al. (2010) to provoke critical analysis of the data (see Table 7.1, p.242). These questions allowed for the identification of dominant themes, significant moments, and interesting co-constructions, alongside issues of convergence and divergence.

7.2.8 Quality criteria. As discussed in chapter 6, considerations of credibility and trustworthiness define rigour in qualitative research and were addressed in the same way in Studies 2 and 3 (see p.198 for details). IPA is vulnerable to the bias of the researcher, as analysis is considered to be performed from their unique cultural perspective (Smith, 2011). There are several actions advised to mitigate this problem, such as analysing data in a 'spirit of openness' (Smith et al., 2010, pg.26) or through adopting a curious attitude (LeVasseur, 2003). The concept of bracketing was also drawn upon reflecting a commitment to rigorous analysis, referring to the attempted

Table 7.1: *IPA: Guidelines for Group Analysis*

Objects of Concern	Description	Group Aspects
Experiential claims	What is important?	Shared Experience
Positionality	Why *intentionally* select objects?	Meanings
Roles	Who else is talked about and why?	Conflicts
Systems	What is described?	Turn Taking
Stories	What narratives are provided?	Reactions
Language	Metaphors, euphemism, idioms	

Note: Adapted from Palmer et. al (2010)

suspension of existing experiences, thoughts, beliefs, attitudes and knowledge of a phenomenon (see Langdridge, 2007; Rodham, Fox, & Doran, 2015). Qualitative rigour was further maximised through the extensive provision of extracts and attention to contradictory expressions of meaning. The analysis was also presented to a panel of academic researchers who discussed the coding, interpretations, themes and quote selection. In further recognition of the hermeneutic loop, a reflective diary was kept in addition to engagement with a critical psychology research group and supervision.

7.2.9 Reflexivity. In Study 3, a small group discussion led to a positive and fruitful exchange of ideas where a range of understandings and standpoints were debated. None of the positions seemed unacceptable in the social context and each of the students seemed happy to disclose and debate their different positions towards employability. Analysis of the students' talk challenged various notions held by the researcher and forced deep reflection about taken for granted valued actions and ways of being. For example, thinking about how to draw out the value of a literature critical of

employability while also balancing this thinking with the practicalities of students needing jobs as a return on their investment. This research explored employability with students but was also undertaken by a student researcher working on their own employability. As such the researcher was not naïve to the challenges of employability for undergraduate students, given that she held multiple positions in relation to employability – as someone with recent experiences of developing their own employability; a person with responsibility to develop other students' employability (through their role as a student-teacher on a placement module); and as a researcher focusing on employability as the topic of their PhD. These multiple positionalities brings forward issues surrounding the interpretative stance taken by the researcher which are addressed in the analysis through extensive quotes and interrogation of the range of understandings that might be drawn from these quotes. A full reflexive statement also further develops discussion on these issues in the context of the whole study in the concluding chapter.

7.3.0 Analysis

Nick, Trudi and Marco spoke about their prospects for employment as their transition into graduate employment was approaching. Trudi and Marco expressed no immediate career plan, while Nick's degree was a *'plan b'* after a setback in his preparation for a vocational career pathway. The analysis revealed the participants to be located upon a continuum of employability engagement. Nick positioned himself as fully engaged with employability, with a strong belief that effort towards employability capitals would reap reward. Trudi occupied a mid-point, showing a more ambivalent approach to employability. She identified herself as currently disengaged, but believed she would engage in the future once she had a career goal. Marco consistently expressed

a critical stance towards graduate employability, which opened up opportunities for the other participants to also express resistance to endorsed employability actions. The IPA yielded three superordinate themes: that student employability means productively 'doing stuff'; that employability is about 'who you know', and finally, that employability involves tensions about identity and 'being me'.

7.3.1 Productivity as the 'doing of stuff'. The students considered an important capital of employability to be the doing of 'stuff'. Doing stuff was an expression used several times across the discussions, interpreted as a means for the students to express their productivity towards employability. Such action included, for example, engagement with work experience and producing a curriculum vitae (CV). But this term also encapsulated the ambiguity or complexity the students experienced when engaging with employability, for while 'doing stuff' implies action and a range of practices (in line with what is valued in the employability literature), it also suggests a formless quality whereby the students may have lacked strategic direction. In the extract below, for example, Nick uses the phrase 'done stuff' in response to Trudi's story about her brother who was *'high up and employed and happy'*, but who she claimed had effortlessly achieved graduate employment.

> '…to be approached, like your brother was he has to be urm, he has to have gone out and done stuff' (Nick)

For Nick, who strongly affirmed that employability was a guaranteed reward for effort, Trudi's story evoked dissonance, to which he responded by denying the possibility of effortless success, arguing that the brother *'has to have gone out and done stuff'*. In in this example, representing a pattern across the data, Nick articulates the importance of action while also its amorphous quality, with the term *'stuff'* providing

the students with a mechanism to articulate the amorphous characteristics of their own or other people's employability capital. In this context, Trudi's brother became an important figure in the discussions as the students made sense of the circumstances under which engagement with employability capitals may or may not lead to lucrative reward. In the extract below, Trudi considered another way in which her efforts and positive qualities might not guarantee her success in the workplace.

> '... on my CV it says that I'm hardworking, but then everyone says they're hard-working but then I genuinely am, and it really annoys me because I'm like because everyone says it it's gonna get overlooked (Trudi)

Trudi identified herself as *'hardworking'* through her engagement with part-time employment, with her CV an important mechanism for displaying her experience and employability. But she also challenged the linear relationship between effort and reward as the possibility of inauthentic claims in CVs, *'everyone says they're hardworking'* means that her genuine qualities could be *'overlooked'*, producing a subsequent devaluing of genuine hard work, *'because everyone says it'*. These narratives show that, although all the students shared a value in activities related to employability (which came under the umbrella phrase 'doing stuff'), their belief systems about the potential for reward differed. For Nick, action was perceived to guarantee reward, while Trudi felt that her genuine qualities and effort could be indistinguishable from false or universal claims, putting her at risk of being overlooked by employers and thus reducing the relationship between engaging in employability capitals and gaining graduate employment

Two sub-themes, 'The Vicious 22' and 'The degree as an evidence', discussed below also showed understandings and experiences that challenged a linear pathway between employability and reward, and which could, therefore, function to demotivate students

from engaging in activities towards employability.

The Vicious 22. 'Doing stuff' could refer to a range of employability practices, but in line with the employability literature, the participants highlighted the importance of work experience. A problem emerged though, in that participation in work experience was consistently described as a circular exchange, in which work experience operated as a capital which offered the lucrative reward of more capital. And, as Nick and Marco describe in the extracts below, entry into this important exchange was experienced as problematic because, paradoxically, the experience of work is needed before one can gain work experience.

> 'The vicious 22, to get employed you need experience and to get experience you need to get employed' (Nick)

> 'The thing is, it's like how experience helps to get a job, it like goes round in circles, you can't get a job if you don't have experience, well you can but like it's quite unlikely, then you can't you can't have experience if you haven't had a job, so it's just like so uncool' (Marco)

Despite his generally confident stance, Nick's use of *'vicious 22'*, his conflation of catch 22 and vicious circle, vividly conveys the ruthlessness of the dilemma. Such an expression also neatly illustrated Bourdieu's notion of accumulated labour, whereby Nick assimilates the visible and invisible structures to express his understandings of employability based upon his cultural knowledge. In this context, Marco also expressed his frustration at the cycle of needing to have had a job before you can gain a job, when he designates it as *'so uncool'*. This dilemma troubled students' understandings of pathways to graduate employment, and challenged the self-efficacy even of those who were committed to developing their employability.

> 'If it doesn't go my way, what am I going to do? so that way [by getting experience] if it doesn't go my way, I'm not sitting there in like a grief-stricken state because I'm thinking oh dear god I'm screwed for life' (Nick)

In this extract, Nick maintained the value of his engagement with work experience as a valued capital, but he also indicated some uncertainty that it would lead to graduate employment. This duality provided a further rationale for his engagement when he suggested that gaining work experience would also buffer against the risk of sitting in a *'grief-stricken state'* and limit the possibility of perceiving himself as being *'screwed for life'* if hoped-for employment did not follow. Nick highlighted the risk that worry or fear about the consequences would overwhelm his efficacy to act and blight his future. This existential talk illuminated that, although Nick is motivated to engage through his value of doing stuff, such action is protective against fear-inducing risks rather than simply a promise of reward. The extreme-case formulations that Nick chooses to describe what could happen to him if he does not engage with employability also highlight the potential for abject employability identities that are productive in terms of engagement but hold potential for harm. Such findings support Holmes' appeal to shift to a process approach, whereby emphasis is shifted away from the possession of capitals which can be outside of the control of the individual.

Trudi and Marco expressed a similar awareness of the possibility of failing to achieve graduate employment, but offered alternative modes of responding to the risk of disappointment. Trudi expressed confidence that she would be able to act when she was ready to choose a career.

> '...I don't have a clue what I want to do, but I'm fairly confident that when I choose I will do everything that I can to do that cuz I'm not worried about not being able to do it, I'm worried about not knowing what to do [for a career]' (Trudi)

Earlier in the talk, Trudi had identified herself as hardworking towards her goals, but above, she explained that she does not have a *'clue'* about her career goal. Career pathways were something she felt *'too young'* to decide about. Trudi's lack of a plan justified not currently acting towards her employability, but in response to the 'vicious 22' dilemma, she asserted that she was not worried and was *'fairly confident'* about taking action when she had a goal, putting off further action towards employability to a future when she has a career goal. Trudi was thus able to reconcile being hardworking and yet not currently developing her employability by engaging in strategic employability actions beyond hard work. This temporal element to engagement in employability was also apparent in the data from Study 2, where students saw choosing a career as something that would follow on from the self-discovery that takes place while at University and which is only completed by the end of undergraduate study. Students may therefore not recognise engagement in employability as an ongoing process that occurs in tandem with and through academic study, even in the absence of clear career goals.

A further dilemma, or *'vicious 22'*, was raised by Marco in the extract below, where he described a scenario in which effort may not be rewarded, and indicated that it could be difficult to maintain motivation towards employability capitals which may be fluid and uncertain.

> '... Sometimes you can make the effort, but you can't work for somebody who isn't gonna sort of give you urm a job, so, or even reply to your emails' (Marco)

Marco asserted that *'sometimes you can make the effort'* only to be let down by the employer, who does not respond despite appropriate actions by students. Marco implied that he could expend effort for no purpose, in contrast to Nick, who made sense of employability capitals on a lucrative reward-for-effort basis. Therefore, while each

perceived themselves as having the underlying ability to perform, the inherent value of doing stuff was not enough to motivate Trudi and Marco to act in a landscape where there was potential for rejection and disappointment. Nick maintained his belief in the value of developing his employability, but even he had to guard against the risk of rejection, failure and abject identities.

The talk in Study 3 resonates with the Study 2 participants' focus on the employer gaze. Although operating differently, Nick and Trudi both positioned themselves as agentic in relation to graduate employment, Nick currently and Trudi in the future. While Marco implied that, irrespective of his efforts, employability capitals are awarded through an employer's agency, rather than his own. Students' sense of a lack of agency may undermine self-efficacy and produce scepticism towards employability in ways which have implications for their willingness to engage. Another problem identified in this study was that despite undertaking a degree as a stepping-stone towards employment, the participants did not see a clear link between their studies at University and their ability to gain graduate level employment. This issue is discussed below.

The degree as an evidence. Despite their recognition of a university degree as a pathway to valued employment, an object of evidence that would appear on their CV, troublingly for about-to-graduate students, the participants also consistently devalued academic learning as an employability capital.

> Nick: When you get a job, most of the stuff you've learnt' in education is going to be useless to you Marco: Yeah Trudi: Yeah, oh I agree

Throughout the discussion, the utility of focus groups in illuminating shared understandings was consistent. In the extract above, Nick received affirmation from the group for differentiating 'stuff learnt', which is *'useless'*, from the valued *'stuff*

done'. He later evidenced this separation with a narrative about a graduate friend who *'learnt this and learnt that and I said yeah, but how is that going to be useful to you... in five years time'*. This talk brought to life the notion of the degree as a temporal employability capital, something which is only relevant to accessing the next stage. Through this shared understanding, Nick, Trudi and Marco consistently evaluated their academic knowledge as peripheral to employability. As the students approached their graduation, they made sense of why they had undertaken a degree.

> 'this [degree] is a crash mat, cuz if I broke a leg or got injured ... I wouldn't wanna be stuffed so this actually sets me up so that I can do a vocational course after this and that's why I chose it rather than doing something more specific' (Nick)

Nick located his degree as an object of evidence through calling it his *'crash mat'*, something which may protect him from his earlier *'grief-stricken state'* if his career goal, which would include further vocational study, did not go to plan. His statement that the degree *'actually sets me up'* is somewhat contradictory to his earlier comment that it is also *'useless'*. But this sense making process can be explained through notions of a degree as an object of evidence as explained in Study 2. It is valued as an essential element, a key to progressing towards graduate employment, but not for its own intrinsic qualities or for what it has taught them. For Nick, his degree was only useful to access training in his chosen field.

In their stories about other people, the students unpacked the issue of whether a degree is a capital of evidence or of self-development.

> 'I suppose you'll then have the upper the upper hand like everyone says that too many people have got degrees now and now it's not going to help you get a job because everyone's got them' (Trudi)

> 'Urm I think it [the degree] pays like, I think you're probably more likely get looked at if

> you've done like a degree or something because it shows that you have like committed to something for three years … like some people who don't sort of go to university, perhaps not so academic, will have to start at the bottom then and work their way up and I think university can sort of like chop out a few of the bottom layers I don't know' (Marco)

Trudi expressed a similar ambivalence to Nick's when she designated degrees as both useful and potentially useless. She hoped that her degree would provide the *'upper hand'* in a competitive market, but acknowledged this usefulness may be undermined by the ubiquity of this form of evidence. In a context where *'too many people have got degrees now'*, a degree no longer guarantees access to graduate employment.

Marco supported concerns about the degree being devalued in the contemporary context. Through an explanation of what a degree should *'show'* he evokes *'bin men'* and those who have to *'start at the bottom and work their way up'*. As such, these pathways, which may be considered as less lucrative, were presented as occupational outcomes from which Marco hoped that his degree would protect him because he has *'committed to something'* for three years. Although he expressed the hope that his degree could *'chop out a few of bottom layers'*, his ambivalence showed through in his immediate qualifier, *'I don't know'*. Nick later supported these doubts about the efficacy of a degree to help them in the graduate job market. When he told a story about a friend who had successfully risen through the ranks in a job across the timespan of a university degree, they all laughed. This laughter indicated that the students were managing a shared but troubling reality, something that Marco said is *'... a bit sort of depressing really'*. This talk indicated that engagement with employability is difficult both because of the risk of failure and a degree's position as simply an object of evidence, a CV-enhancing item, rather than as providing learning that is valuable for employment.

If a degree is a questionable capital, the students were unanimous in asserting the

importance of social capital to employability. How they described the value of social networks is explored in the second superordinate theme, 'it's who you know'.

7.3.2 It's who you know. The second superordinate theme reflects talk about who the students know, or their access to social capital. As the students unpacked their understandings of employability, the notion of other people as a form of capital was ever-present, aligning with employability pedagogy practices such as social networking, mentoring, and sponsorship (Lees, 2002). But as with the other capitals the students discussed, their lived experience revealed complexity and tensions that could account for both engagement and non-engagement in developing social networks to increase employability.

> 'It's definitely about who you know, rather than what you say you know' (Marco)

If the doing of stuff was capital, then social networks were described as the vehicle for that capital. In the extract above, Marco defined employability as *'definitely'* about who you know, but he adds a layer of complexity with his twist of the expected ending of the phrase, *'rather than what you say you know'*. He indicated both the importance of social capital to employability, but also the element of self-presentation, implying the possibility of false claims (and echoing Trudi's earlier concerns about everyone saying that they are hardworking). Marco received affirmation from the group as they recognised his understanding of the role of social networks, and how that capital is claimed and presented in gaining work experience and graduate employment. Despite this recognition, the students aligned themselves differently in relation to social capital. Nick identified his social networks as facilitating his engagement, while Trudi and Marco located other people as having the potential to block action. These issues are explored through two sub-themes, labelled 'playing the people' and 'gatekeepers'.

Playing the people. Throughout the focus group, Nick aligned himself with the discourse that doing 'good' employability meant capitalising on the social networks which facilitate opportunity.

> 'I've really been quite lucky, I keep getting bits and bobs and nice little jobs in different places, and it's because I keep people hopping effectively. Oh I know such and such, oh can you put in me in touch with them and I'll do the jobs, whereas actually, I guarantee there will be hundreds of people out there who are far better at it than me, it's just playing the people and then you can use the people' (Nick)

Above, he described how he gets *'bits and bobs'* and *'nice little jobs'* in a choice of expression which indicated, but also perhaps minimised how much he has benefited. This may buffer against a sense an unfair advantage or dispreferred position as someone who has access to or exploits his networks. Though he initially attributes his success to him being *'quite lucky'*, he goes on to say it is because he *'keeps people hopping'*, *'plays the people'* and *'uses the people'*. Nick understood other people as an opportunity, resources which can be capitalised, operating under his control to support his doing of stuff. Nick expressed a comfortableness in being inauthentic, through his willingness to *'use'* others to achieve his own means and his recognition of such network as part of an employability 'game'. Later, in the discussion Nick credits his father with teaching him this strategic approach. Bourdieu (2011) called this process inheritance, where cultural capital is passed down through generations, forming a part of the structures in society which can produce inequality in the distribution of different capitals.

Trudi and Marco also recounted accessing social capital, but showed less active strategy than Nick, and perhaps less recognition of the value they gained through their contacts. Below, Trudi recounted an experience of accessing a shadowing placement through a friend of her mother.

> 'I just went and followed this girl around, my mum's best friend works in like a drug charity, and so I just went and shadowed her for a bit, but it led to my dissertation, so it was kinda good, but I didn't really do anything' (Trudi)

Trudi's description of how her mother's best friend facilitated her work placement was prompted by Marco asking Trudi to talk about an experience which he called *'absolutely golden'*, an expression that indicated his perception of its great value. But despite Marco's excitement at her opportunity, Trudi downplayed both her role within, and the value of the capital; she *'shadowed'*, did *'a bit'*, she *'just went'*, and she *'didn't really do anything'*. This statement led to the disclosure of a further benefit, the work experience had led to her choice of dissertation, but this outcome was only *'kinda good'*. In contrast to Nick, Trudi was less prepared to take ownership of the capital, and appeared less willing to incorporate this strategy that accommodated the use of other people into an affirmative sense of self.

One way in which to view Trudi's experience is through a lens of gendered identities as outlined in chapter 3. In Study 1, women showed lower self-efficacy in combination with higher skill levels. Trudi's reluctance to both acknowledge her own skill and also identify herself as active in the process aligns with these findings and with traditional expectations of women's relative passivity in a patriarchal society (Riley & Evans, 2017).

In a further contrast to Nick, Trudi and Marco consistently expressed the social capital of other people as out of reach or beyond their control, findings which are explored in the subtheme of 'gatekeeper' roles.

Gatekeepers. While Nick is the agent in his destiny, in control of his employability strategy, Marco and Trudi interpreted themselves as beholden to the hierarchal status of

'others' and lacking in the belief systems which would encourage them to engage with social capital.

> 'It's true [value of people] like work experience over the road at the supermarket, after I finished working there he was like 'oh if a position comes up, you know, I'll let you know' cuz you did a good job, so I think it is about urm if you know somebody in an organisation then they can always like sort of act as a sort of a most superior reference if you like, more than anyone that's on your CV' (Marco)

Marco and Trudi's stance was confirmed at several points, as they shared stories of being mistreated by *'bosses'* or excluded from opportunities. In the extract above, Marco expressed satisfaction at forming a connection with a supermarket supervisor through work experience who offered the potential for future work. He recognised the value of this contact as a *'most superior reference'*, that exceeded that of other kinds of capital, *'more than anyone that's on your CV'*. This indicates that while Marco accepted that the work experience will be present on his CV, the capital only becomes lucrative through the pathway of knowing an influential person. Thus, Marco differentiates the value of the doing of stuff, from that of more lucrative social capital.

A consideration of socioeconomic status can offer an insight into Marco's stance in relation to employability capitals. No student was asked to indicate their SES background, but Marco offered indications of his background in a working-class community, such as his mother's jobs in unskilled/semi-skilled professions. For Marco, undertaking a degree represented an alternative to the blue-collar roles he discussed as possible career pathways. Through a Bourdieusian lens, Marco's background may inhibit his opportunity in two main ways. In the absence of historic cultural capital, he may be excluded from the lucrative rewards of inheritance that Nick exemplified. Secondly, if Marco's life experience taught him that action does not necessarily lead

to reward in the material sense, then he could face extra challenges in orientating his learning towards the portfolios described in Study 2 and maintaining his motivation in the light of that lived experience.

As Nick, Trudi, and Marco shared stories, it became apparent that alongside the 'doing of stuff' and who you know, tensions surrounding taking up valued, authentic ways of being within the context of employability; these are explored in the final superordinate theme of 'being me'.

7.3.3 Being me. Throughout the discussion, Trudi and Marco affirmed that recruitment practices, especially CVs and interviews, operate to enforce value systems relating to identity. Students negotiated their perceptions of sometimes conflicting demands of a self as valued by employers, and their own need to inhabit an authentic identity. Subthemes of a 'charismatic me' and 'being authentic in an inauthentic landscape' further explored the features of particularly valued ways of being.

A charismatic me. In a context of valued employability identities, the students spoke about the importance of being charismatic, although, interestingly, none of the students claimed to possess this quality.

> 'I reckon someone who is charismatic and pragmatic, and who can do all the different things, I reckon they could have done it just as well [as me] if not better...I don't think it was about the experience, I think it's about your personal skills' (Nick)

Throughout, the focus group Nick identified himself as a person who was engaged with the capitals of employability. In the extract above, however, he presents a notional person who could do *'just as well, if not better'*, if, in addition to *'doing all the different things'* they also had *'charisma'* and *'pragmatism'*. In contrast to his other narratives that assert the value of experience, or doing stuff, here he emphasised the primacy of

'personal skills'. Nick places charisma top of a hierarchy of skills, and despite his generally confident approach, it is in the implication that he may not be 'charismatic' that causes his self-efficacy to waver. This talk indicated that for Nick, there was potential for a further valued capital to supersede the effort involved in doing of stuff and of social capital in who you know. Trudi stated more directly that her perceived lack of charisma had presented barriers to her employability.

> 'I panicked and was like NO, but then if I was actually a bit more charismatic . . . it might of actually gone somewhere' (Trudi)

Trudi described how she impulsively turned down a work-related opportunity when a manager had offered her a lucrative placement, but she had *'panicked'* and said *'no'*. In an attempt to rationalise this self-sabotaging behaviour, Trudi believed that her being *'a bit more'* charismatic would have prevented this outcome, and the opportunity might have *'gone somewhere'*. Here Trudi built on Nick's understanding of charisma, implying that it incorporates interpersonal and social skills that encompass management of the self as well as workplace situations. She suggested that *'charisma'* would have enabled her to avoid an inappropriate emotional response, to respond differently, and take advantage of the opportunity she was offered.

Nick described charisma as a skill set that might supersede other types of capital, and Trudi gave a clear example of her perceived deficit in charisma which limited her social skills to respond appropriately to and take advantage of in work opportunities. Marco added to a nuanced understanding of the concept when he revealed the complexities of negotiating the quality of charisma to achieve an appropriate professional demeanour.

> 'I think the reason they'd [recruiter] like me is because I seemed sort of quite friendly. . . you wouldn't go into like an office for a big chain and be like necessarily chirpy,

> you could charismatic, but you can't like joke around with them and stuff, because they'd be like well this is unprofessional' (Marco)

Marco attributed his success in gaining a job at a local shop to his being *'quite friendly'*. But he acknowledges that this quality might need to be modified when he projects forward to consider graduate employment in an office where his friendliness, being *'chirpy'*, might not be appropriate. For Marco, charisma is a subtle characteristic, that incorporates good social skills, but which avoids the risk of being *'unprofessional'* that people who *'joke around'* might run. Marco was thus unable to lay claim to being *'charismatic'* and incorporate good social skills into his work identity. Despite citing experience where his friendliness was a reason why a recruiter liked him, Marco persisted with a view of himself as deficient, where his own way of being was potentially *'unprofessional'*.

The students' overriding sense was that being charismatic was a valued capital of employability, but also that this was an aspirational attribute rather than one which they incorporated into their current identity. The students also understood charisma to be multifaceted and require complex negotiations, which might account for their reluctance to incorporate charisma within their employability identity. Study 1 evidenced that across a taxonomy of skills, the category in which students were most likely to consider themselves as skilled was communication. While Study 2 developed a theme of growth, which incorporated a value for social skills. And yet, charisma is presented here as distinctly sitting apart from being a sociable communicator. As such, charisma could be seen as the 'x' factor (Morley, 2007), *'fairy dust'*, or whatever allusive term might be selected to describe people interacting in a valued way within the recruitment context.

Being charismatic is understood as a significant capital of employability, but it is also considered unachievable, even to Nick as an employability-active student. The

issue of to whom a charismatic identity is available prompts a critical reflection about how educators present valued characteristics, and what opportunities are available for students to practice, identify with, and develop self-efficacy towards this capital.

Building on the necessity to be charismatic, the students also explored how to be themselves, and thus remain authentic, in a landscape which they experienced as inauthentic.

Being authentic in an inauthentic landscape. On page 252, a theme of 'it's who you know' was introduced using an example from Marco who referred to the saying that what matters is *'who you know not what you know'*. In a move which Nick called *'clever'*, Marco intentionally added a second layer of meaning in his statement that it's not just who people know, but also what people *'say'* they know. Here, he used the common phrase to cement a worldview that threaded through his talk in the focus group; Marco thought that working on one's employability means being inauthentic, that engaging and presenting oneself in CV necessitates lying about capabilities and achievements.

> **Marco:** ...an honest CV isn't as good as a lying CV to an organisation...they can see you know, whether your CV should be written on toilet paper or should be framed
>
> **Nick:** I actually disagree, I think that they are probably quite good at picking out what they think is utter rubbish...if you've actually got the skill to actually make it relevant on the CV you've proved it... if you've got job experiences, grades, references that prove it then they'll look at that and they know what you have and haven't got
>
> **Marco:** I think that to have skills is obviously really really important, but I think that at the same time, like when I did business studies at school my teacher said some organisations that they don't even, they say like if you send it via email they look through at the keywords and stuff and if you haven't got a keyword in there they just won't look at your CV...
>
> **Trudi:** A very simple way of proving that is, my friend deals with like incoming CV's and

he says if they're over a page long he just throws them immediately in the bin

In different ways, Nick, Trudi, and Marco all provided stories reflecting their belief that good employability can include exaggeration, manipulation and even lying within a broader landscape of unfair and inauthentic practices. In the extended extract above, Marco repeated his scepticism about a strategic approach to employability, arguing that *'an honest CV'* is not as good as *'a lying CV'*; he adds that *'they can see you know'* to indicate that this behaviour is legitimized in employers' recruitment practices, whose acceptance of inauthenticity forms the basis of whether a CV would be valued or disregarded i.e. *'written on toilet paper or should be framed'*. Therefore, while the students consistently recognised CV as an important capital, their talk illustrates their scepticism of how a CV contributes to employability in practice.

Nick rejected Marco's suggestion of employability as inherently inauthentic, a characteristic which would directly challenge his stake and confidence in the doing of stuff as an exchange for reward. Nick credited recruiters with the skills to filter out *'utter rubbish'*, and reframed Marco's challenge to authenticity by arguing that producing a successful CV is a skill in itself. But rather than characterising it as false, Nick argued that presenting oneself well in a CV is actually an important proof of skill, one that *'overrides'* everything else and *'proves'* ability. Therefore, through a repackaging of inauthenticity, Nick remained authentic because of his skill at being inauthentic. Linking with the earlier theme of 'playing the people', Nick illustrated the value of cultural capital in recruitment practices where behaviours which in other fields may be understood as manipulative are instead seen through a strategic lens, inauthenticity is just what people do to gain employment legitimately.

The students continued to debate their worldviews. Marco agreed that to *'have'*

skills is *'really really important'*, interpreted as an attempt to soothe the insult to Nick's belief in the exchange model. But then Marco drew on his school teacher, who he legitimised as an authority in recruitment processes through his specialism in business studies, and who had said that recruiters evaluate CVs based on *'keywords'*. Here, Marco's understanding about inauthenticity shifts from simplistic understandings of not being truthful, and towards a more sophisticated understanding of unfairness. Knowledge of such keywords represents a form cultural capital, which may not be inaccessible to all irrespective of effort.

Trudi had the last word on the issue and supported Marco's view, by arguing that she had a *'very simple way of proving'* the notion that inauthentic CVs are superior to authentic CVs. To make the argument, Trudi evoked her friend who processed incoming CVs, who claimed that those over a page long were thrown *'immediately in the bin'*, which she designates as a *'crazy'* situation. The implication is of a scenario where there is a cap on reward for effort. Extra effort does not equate to more consideration or deliberation of experience and skills. Talk about a *'capped'* CV creates tensions between students' perception of a need to be brief, with only keywords counting, and the first-year students' focus in Study 2 on gaining a high quantity of evidence on their CVs. This shift may represent a more sophisticated understanding developing from first-year students to soon-to-be graduates, but all the narratives illustrate the complex, nuanced constructs that students negotiate as they seek to reconcile their 'authentic' identity with the identity they believe employability necessitates.

7.4.0 Conclusion for Study 3

In this study, Nick Trudi, and Marco spoke about employability as their transition from university into graduate employment approached. IPA was used to explore possible

worldviews and sense making of salient employability identities through interactions with valued employability practices, addressing Research Question 3, which asked how do final-year students negotiate issues of identity around employability?

Rich data and shared understandings demonstrated the utility of focus groups as a method in exploring employability as differences in students' understandings of employability and employment identities emerged. Nick might be considered as *'engaged'*, conforming to the archetypal expression of employability engagement in the HE policy context; but also adopted the *'scattergun'* approach to engagement consistent with the 'player' identity outlined by Brown and Hesketh (2004, p.126). In contrast, Trudi and Marco expressed a more problematic engagement with the construct, and shared narratives of resistance and rejection. Here, the students more readily aligned themselves with notions of a 'purist' identity, where worries about authenticity blocked action. And in doing so, aligned themselves with the process approaches to employability, since possession of the capitals was not necessarily enough to guarantee them a good job. This focus-group data indicates the dilemmas and tensions, summarised below, that students encounter in their negotiations of employability capitals and identities.

7.4.1 Non-linearity of effort and reward. Despite the students' recognition of the value of employability engagement, their lived experiences sometimes troubled the assumption of a linear relationship between engagement and reward. Nick, Trudi, and Marco's talk mirrored the taken-for-granted role of work experience in graduate employability which was observed in the data from Studies 1 and 2. Students aligned themselves with the dominant understanding of employability as a collection of endorsed activities which build towards a portfolio (Bennett et al., 2008; Branine,

2008). However, their talk also troubled the linear pathway between their employability actions and reward in the graduate job market. Both the paradox of needing experience to gain graduate work experience and the power of the employer to overlook students' achievements form barriers to achieving their graduate employment goals, irrespective of students' effort. Here, the talk mirrored the concerns of the critical literature base that warns of the declining role of academic credentials in a contested graduate labour market (Tomlinson, 2007).

There were limited positive work identities available to the participants in the context of these dilemmas and barriers. The students perceived themselves as having less agency than employers, as being potentially indistinguishable from many similarly qualified candidates, and as being underskilled through their lack of access to work experience. Brown et al. (2003) suggest that a student's worth is no longer evaluated by academic currency, but instead by the economy of experience. But for these students, this economy of experience also brought with it potential harm to self-efficacy. These nuanced expressions of employability may increase possibilities for disengagement which go beyond the lack of clear career goals which formed a theme in Study 3, and as summarised below, their ambivalence extended to the degree itself as a form of employability capital.

7.4.2 Devalued academic learning as an employability capital. Studies 1 and 2 demonstrated complex relationships between the relative value of academic study and employability capitals of work experience and careers guidance. Nick, Trudi, and Marco's discussion reinforced the tension between degrees and work experience by consistently differentiating their 'stuff learnt' from 'stuff done' in ways which devalued the degree and located it as peripheral to employability development. Here the degree

was acknowledged to offer an *'upper hand'* in the graduate labour market, but its ubiquity undermined this value in the context of many other students holding this capital.

The students quantified their degree in talk that reduced it to an object of evidence, a CV-enhancing item, rather than as something that directly teaches skills relevant to employment, or contributes to personal development in ways that indirectly increase employability. Neither did they share HE's construction of engagement in employability as an ongoing process that takes place in tandem with and through academic study. The students' talk indicated that a university education does not necessarily increase self-esteem or self-efficacy. The reductiveness of their perspectives on academic study suggests that they may undervalue their achievement and development as well as their degree, and may not, therefore, access positive academic or employability identities. Rather than employability and academic study being harmonious and mutually supportive, the students' talk in Study 3 indicated the possibility that they can function in reductive and exclusive ways, such that from an employability perspective, academic study may only be valued as a necessary item on a CV, and engagement in employability may be seen as necessary only towards the end or after the process of gaining a degree.

The separation of and tension between academic study and skills gained through work experience produce a troubled space for students' employability identities. Implications for identity are also revealed in students' talk about social capital and employability. Although students recognised the value of social networks to employability, lived experiences of accessing and using social capital also created tensions around authenticity and identity, as summarised below.

7.4.3 Social capital and authentic selves. The students recognised other people as important to employability and illuminated different possibilities about how social networks may be capitalised. Social capital encompasses employability practices such as social networking and sponsorship (Lee, 2011). However, engagement in social networks could be problematic as they valued, but also resisted the positions that this capital evoked. Nick, in particular, understood his lifeworld as requiring the skills to *'play other people'*, thus incorporating social networks into his 'effort in-rewards out' belief system. Mirroring Brown and Hesketh's (2004) conceptualisation of a 'player' identity, Nick deflected the negative connotations of game playing and manipulating others by redefining being inauthentic as an authentic skill and necessary employability capital. Nick's networking skills were learned from his father, forming a cultural capital recognisable in the graduate labour market about how to maximise social networks to personal advantage. In this way, Nick laid claim to an effective employability identity and was able to remain authentic through his skill at being inauthentic. Trudi and Marco did not lay claim to the skills of 'playing' other people - other people remained outside of their control, but they buffered against this deficit by incorporating their scepticism towards and lack of social capital within a less skilled, but more authentic and honest employability identity. Marco's scepticism about the role of other people and their capacity to reward without effort played a central role in his resistance to the employability engagement.

A further employability identity relates to the notion of charisma. The students talked about charisma as a valued employability capital, and though each defined the characteristic in their own way, it was interesting that it was out of reach or aspirational for all of the students. Their implied and explicitly stated deficits in charisma, therefore,

formed a barrier to their becoming the 'rounded' employable citizen described in Study 2, and excluded them from fully positive employability identities. Allen et al. (2013) identified the ability to network using personal contacts is a 'mandatory practice', which favours those with higher levels of social capital. Since pedagogic practices such as mentorship, networking and sponsorship are all endorsed activities within employability, this theme suggests that alongside material access to social capital, understandings of how to interact with the opportunities available is also important.

The students' employability identities can also be understood through the lenses of gender and class. Trudi's reluctance to identify herself as a valued contribution to the workplace reflects a gendered identity in alignment with the evidence of lower self-efficacy for women evidenced in Study 1. Marco indicated that his participation in HE was pathway away from blue-collar employment pathways. From a Bourdeusian perspective, Marco's background could inhibit his opportunity in two main ways. In the absence of historic cultural capital, he may be excluded from the lucrative rewards of inheritance, exemplified by Nick. Also, if Marco's life experience has taught him that action does not lead to reward in the material sense, then he would face extra challenges at maintaining his motivation and orientating his learning towards the portfolios described in Study 2.

These narratives illustrate the considerable complexity and challenges that students may face as they seek to reconcile their 'authentic' identity with identities necessitated by the demands of employability, and have important implications for HE, employers, and policy.

7.4.4 Implications. Study 3 holds implications for understandings about available employability identities. The ways in which the study findings inform the literature

base and recommendations for intervention are addressed comprehensively in chapter 8. In the following section, the implications of Study 3 are briefly summarised.

Students' separation of academic study from the acquisition of employability skills had several implications related to identity and employability. The findings of Study 3 reflect those of Studies 1 and 2, and also point to the value of understanding more about employability capitals and identity as important aspects of graduate employability models. Employability training and advice currently assumes a linear pathway between engagement in employability practices and success in gaining graduate employment, but the students' talk indicates the complexity of graduate employability, and the potential for disengagement and reduced self-esteem and self-efficacy in the face of the contradictions, dilemmas, and paradoxes that students encounter in their lived experience. The students all spoke about good employability as including the some of the self-presentation consistent with troubled notions of identity in Study 2. These findings also fed into the sense of duality present in Study 2, where students' expressions of employability exposed dilemmas about HE for self-development or HE for labour market positioning. Nick, Trudi, and Marco's accounts thus illustrate the importance of understanding the complexity of student's sense making in relation to employability capitals.

7.4.5 Limitations. The students in this study did not speak for all students, but rather offered evidence of employability identities which may be adopted and resisted, intended to represent an 'essence' of shared humanity as suggested by Merleau-Ponty and Lefort (1968). The focus-group design facilitated this approach through the unpacking of experience which may have been left undisclosed without the peer interactions and yielded interesting and valuable findings that add detail and nuance to

Study 1's quantitative data. However Study 3 had limitations in common with other qualitative studies. For example, the positions expressed by participants are always limited to what the individual is prepared to divulge (Brocki & Wearden, 2006) or able to articulate (Willig & Stainton-Rogers, 2007). Also, while Bourdieu's notion of capitals provided a fruitful perspective for the analysis, other theoretical approaches could have yielded alternative readings of the data. The potential for other ways of thinking are explored in the reflexive section of chapter 8.

However, Study 3 made an important contribution to the overall aim of the thesis, and in addressing Research Question 3 showed identity to be an important, dynamic and nuanced 'compass' directing students' motivations in complex ways in relation to engagement with employability capitals. The following and concluding chapter of this thesis considers the findings of all three studies, how they relate to the existing literature, further questions raised, and the implications for research and practice.

Chapter 8

Main Discussion

This thesis sought to explore the role of SRL in student engagement with employability capitals, and in doing so, contribute to theory on graduate employability. To do this, it posed three research questions about the employability capitals of academic study, work experience, careers guidance, and transversal skills. The research questions were addressed through a three-study design that drew on different perspectives with a view to contributing towards a call for empirical work that offers HE and students 'direction and strategy' (Jackson, 2016, p.2).

In this final chapter, each research question is answered, explaining how each study uniquely informs and develops the literature, makes a contribution to theory, and builds on the other studies in the thesis. The thesis then describes how the overall findings might support, challenge or provide a novel addition to the current literature, including the usefulness of the complex, multi-perspective design. The implications for employability interventions by HE institutions are then outlined with a view to the overarching aim of the thesis, which was to develop empirically supported evidence for how universities can best support students in preparing for graduate employment contribution to theory. In the final sections, overall limitations of the thesis and avenues for future research are considered before making the final conclusions.

8.1.0 Overview of the research questions and their rationale

In chapter 2, the thesis explained how and why employability is such an important issue for government and higher education institutions (HEIs). It also highlighted that despite considerable investment in graduate employability, there remain significant knowledge gaps. For example, why some students do not engage with activities designed to enhance their employability when part of the rationale for enrolling in HE education is to enhance their graduate employment opportunities. Other issues with employability include debates on how to conceptualise preparation for graduate employment and thus how to design effective interventions or useful research on the issue. Still others question the compatibility of academic study and employability training in higher education institutions. The outcome is that, in the field of employability, there are some deep-seated value differences across key stakeholders that problematise the question of how to support students in developing employability. It is this context that created the rationale for the present thesis, and its overarching aim to develop empirically supported evidence for how universities can best support students in preparing for graduate employment.

To address this aim, the thesis reviewed the literature on employability, including how to conceptualise employability and how student engagement might be facilitated by educators. To bring together this literature, which was scattered across various perspectives and disciplinary foci, the thesis drew on the work of Holmes (2013), who categorised three approaches to employability, namely, possession, position and process. In chapter 2, the thesis described these different categories and made a case for combining the possession and position approaches under the term 'possession' since they both conceptualised employability as something that students could 'have' if they

engaged in certain practices.

Drawing on the sociological philosopher Bourdieu's notion of capitals, the thesis proposed that within a possession approach to employability, students might hold up to four 'employability capitals'. These were academic study, work experience, careers guidance, and transversal skills. The four employability capitals were produced by reviewing the literature and identifying a broad range of empirically supported employability-enhancing practices (see chapter 2). Academic study is the student's overall degree classification determined by their grade point average. Work experience is experience gained which aligns with the occupational setting and includes a broad range of action, including non-graduate and graduate roles, and extracurricular activities. Careers guidance includes support to develop self-presentation, careers goals, and skills relevant to applying for and securing a job. Transversal skills are skill-sets valued by employers and sit alongside discipline content, and include skills such as communication skills and commercial awareness. Each of these capitals sit within a hierarchy, for example, a 2:1 is valued more highly than a 2:2, and graduate experience more than non-graduate experience. The argument is that possession of the capitals mark a graduate as more employable in the contemporary British labour market, but that how much more employable is subject to complex interplay of social factors (see chapter 2). The possession approach suggested that the way that universities might best support students in preparing for graduate employment would be by facilitating students to gain the employability capitals.

Chapter 2 also highlighted some of the criticisms of the possession approach, enabling chapter 3 to introduce the process approach, which conceptualised employability differently, highlighting the role of identity and students' sense making of the wider employment context. Within the process approach, students with high

employability would be those who had learnt skills in learning skills associated with being a graduate. This process approach suggested that how universities might best support students in preparing for graduate employment would be by facilitating students to learn how to develop skills as part of having a graduate identity.

Reviewing evidence from both the possession and process literatures, the thesis concluded in chapter 3 that it was likely that an efficacious intervention would draw on both these approaches. However, this left the thesis with three interrelated problems. The first problem was that employability research rarely integrated the different approaches. Thus, insights gained from the process approach did not inform work taking a possession approach and vice versa. Nor was it clear how these different approaches might inform each other; and neither offered an appropriate standardised measurement of employability. The second problem was that while the process approach was supported by empirical research, there was a lack of knowledge as to the underlying psychological mechanisms of these processes. Similarly, there was little understanding of the psychological processes that might underpin students' levels of engagement with employability capitals. The final problem was that across the employability literature in general, the student voice was lacking. Students are an important stakeholder in employability and their sense making about key aspects of the process and possession approaches to employability are recognised as a missing perspective (Tymon, 2013). This is particularly important given that students' interpretations of employability were likely to shed light on how key factors related to employability intersect in complex and dynamic ways that shape students engagement with employability.

To address the above problems, the thesis proposed self-regulated learning (SRL) as the psychological mechanism underpinning student engagement with employability.

Schraw et al.'s (2006) influential model of self-regulated learning (SRL) was conceptualised as the underpinning construct influential in the process of learning towards employment. Here, students' learning is supported when metacognitive and motivational components are in place. SRL is a well-established and evidenced theory of learning, with students who are better at SRL being more likely to achieve their goals, finding learning easier, procrastinating about learning less and showing higher levels of academic satisfaction (e.g. Clark, 2012; Pintrich, 2000; Schmitz & Wiese, 2006; Schraw et al., 2006; Zimmerman & Campillo, 2003). The thesis proposed that transferring this knowledge about learning to employability would be useful, arguing that SRL could support a student's engagement with practices likely to allow them to gain employability capitals. This argument also allowed a connection between the possession and process approaches, since it suggested that SRL could be understood as part of the process that leads to possession. SRL further tied into the process approach because it incorporated issues of identity into the model, with identity acting as a 'compass' for learning. Translated into the field of employability, this meant that learning towards employment was only predicted to take place when understandings about employability capitals are salient to the student's identity.

The thesis thus suggested conceptualising employability as a process (through which students might gain employability capitals) by using the construct of SRL as a framework. From this, the thesis posed three research questions to be addressed by three separate studies, the findings of which could be integrated to comprehensively address the overall aim of the thesis and thus provide evidence-based directions for universities in their employability-provision interventions. The first research question posed was, 'can SRL predict students' engagement with practices associated with employability capitals?' Through posing and answering this question the thesis aimed

to address the first two of the three interrelated problems described above, namely integrating process (SRL) and possession (capitals) approaches, and testing SRL as a psychological mechanism underpinning students' ability to develop employability capitals. The second research question asked, 'how do first-year students understand the different employability capitals?' Addressing this question allowed analysis both of the student sense making of employability (addressing problem three described above) and also informed interpretations of the quantitative findings of Study 1. The third research question asked, 'how do final year students negotiate issues of identity around employability'. Answering this question further addressed the lack of student interpretations of employability in the literature, and, as will be described below. It also allowed the thesis to contribute to integrating the possession and process approaches, for example, by showing that students did not always seek graduate work experience because they saw greater benefits in what the literature would consider to be less valuable types of work experience such as their part-time jobs. Study 3 thus accounted for why students might not engage in practices that lead to graduate-oriented work experience despite enrolling at university to be better equipped to compete for graduate-level employment.

Each research question was answered with a separate study methodologically designed to best address that question. The outcome was a multi-method design combining three studies, each underpinned by different epistemological foundations but within an overarching critical realist ontology. Research Question 1 (can SRL predict students' engagement with practices associated with employability capitals?) was addressed with a quantitative study in which path analysis was used on data from 294 undergraduate students to identify any correlations between SRL (as measured through measures of metacognition, self-efficacy, and views about knowledge and

learning) and employability capitals (academic success, work experience, engagement with careers guidance, transversal skills). Research Question 2 (how do first-year students understand the different employability capital?) was addressed with a template analysis of 20 individual interviews with first-year students, which allowed an analysis of how students entering university make sense of institutional requirements to engage with employability capitals. Finally, Research Question 3 (how do final year students negotiate issues of identity around employability) was addressed with an interpretative phenomenological analysis on a focus group with three final year students, which sought to access collective sense making of a group of students reflecting back on their experiences of employability engagement over their time at university and how they interpreted those experiences as they began seeking graduate employment.

Overall, the thesis was a complex application and integration of a number of disciplinary perspectives. For example, Bourdieu's sociological concept of capital was used, while SRL drew from psychology. Multiple methodological approaches and methods were also employed. This lead to significant complexity. It is the contention of the thesis that such complexity was required if it were to address the three interrelated problems outlined above, engage comprehensively with what is a complex issue, and address limitations of previous research that approached employability in partial ways that might account for their limited findings.

It is the purpose of this discussion chapter to review the findings of the three different studies with reference to answering their separate research questions, before integrating their findings to address the wider aim of the thesis. After which follows an evaluation of the methodological decisions outlined above. In the section below, therefore, each study is first considered separately. The research question is answered, and how the findings inform and develop the literature (and the studies in the thesis

when relevant) in terms of concordances, divergence and novel findings are discussed. This is then followed by a review of how the contributions of each study might be integrated.

8.2.0 Findings in relation to the research questions

8.2.1 RQ 1 can SRL predict students' engagement with practices associated with employability capitals?. Research question 1 was addressed through a path analysis from data collected from 294 students who were aged 18-30 and registered on degree programmes across the UK. The three subordinate constructs of metacognition, self-efficacy, and epistemological belief of Schraw's Model of SRL were measured using four pre-validated instruments, the Metacognitive Awareness Inventory (MAI), New General Self-Efficacy Measure (NGSE), Workplace Self-Efficacy Scale (WSSE), and Epistemological Beliefs Inventory (EBI). A range of developed questions captured student engagement with employability capital, including academic study, work experience, careers guidance, and transversal skills.

Path analysis results showed that SRL had a strong effect on academic performance and on level of transversal skills. This means that the greater a student's level of SRL, the greater their predicted degree classification and skill-set level across a range of skill categories valued by employers. A student's capacity for SRL also impacted to a medium degree (or 'had a medium effect on') engagement with careers guidance. Therefore, students with higher SRL are more likely to engage with the careers-guidance activities demanded of employability. Thus a key finding of Study 1 was that a student's capacity for SRL can predict engagement with the employability capitals for three out of the four capitals (academic performance, transversal skills, and careers guidance). Drilling down to explore the correlations

between the subordinate constructs of SRL (of metacognition, self-efficacy, and epistemological belief) and the employability capitals showed evidence of further supportive relationships. Metacognitive status was positively related to students' engagement with the employability capitals of academic study, careers guidance, and transversal skills, and students' self-efficacy was positively correlated with their engagement with all of the employability capitals. Significant, although weak, relationships between epistemological belief and both academic performance and work experience were also identified.

Overall, Study 1 therefore showed that SRL predicts employability engagement in relation to academic performance, transversal skills and engagement with careers guidance, and that metacognition, self-efficacy and epistemological belief all inform this relationship. This is a novel finding of this study and a key contribution to the literature. Two further important findings of Study 1, in relation to work experience and engagement with career guidance, offer important support for the complexity of the SRL/employability relationship, which are discussed below.

In relation to work experience, a substantial number of students reported engagement with work experience alongside their academic studies, but the path analysis yielded no support for SRL as a predictor of work experience engagement. Study 1 therefore showed that whether students engage with work experience or not is not because of their proficiency in regulating their learning. To interpret this finding, it is noted that Study 1 organised work experience hierarchically in line with the literature, with graduate engagement 'worth more' that non-graduate engagement. The majority of students reporting work experience (88%) reported experience in the lower 'non-graduate' category, while only 30% reported graduate-level work experience. These findings suggest that either SRL is not a mechanism for work experience, and the

prediction that SRL predicts engagement with work experience is unsupported, or that there is a mismatch between students' understanding of the value of work experience and the hierarchical categorization of work experience as outlined by the literature. If the latter, then SRL could still be predictive of work experience if work experience is conceptualised more in line with students' understandings. This suggests a potential divergence between the current thesis and past research, which was examined through Study 3.

In relation to career guidance, that SRL was predictive of career guidance engagement supported the thesis' proposed argument that SRL offers an underlying psychological mechanism to explain students' engagement with career guidance. However, analysis of the data also showed that the majority of students (60%) did not engage with careers guidance, suggesting that other factors mediate a student's likelihood to use careers guidance and that understanding students' understanding of the role and value of careers guidance is essential to understanding their engagement with this employability capital. Therefore, the findings offer support for SRL being important to engagement with careers guidance, but also pointed to the importance of Study 2 and 3, which were designed to better understand the student perspective.

Overall, the analysis of Study 1 suggests that SRL is predictive of students' engagement with academic study, transversal skills, and careers guidance engagement. These are important findings as they offer the novel addition to the literature of an empirically supported psychological mechanism for student engagement with employability capitals. But some findings also indicated further complexity. For example, students were not more likely to engage with work experience because of their capacity for SRL, and students with high academic performance were not more likely to engage with the broader employability capitals. Such findings point towards mediating

factors such as a limited jobs market or beliefs about the role of careers guidance (see, for example, chapter 2 where the future-orientated notion of career aspiration blocks actions in the present). Therefore, Study 1 offered implications for understandings about employability engagement through SRL, but a part of this contribution was the opening up of divergent pathways, mediating factors, and complexity suitable for exploration through the qualitative enquiry of Study 2 and 3.

Implications for understanding (including contribution to theory):. The findings of Study 1 evidence that SRL is important to our understandings of employability. That learning is related to employability engagement is not new, indeed it underpins a pedagogic emphasis on experiential learning and reflection evident in many employability interventions. There is, however, surprisingly little empirical evidence to support such a pedagogic emphasis, and the underpinning concept of learning in employability models is often implicit and thus lacking visibility. Therefore, the findings of Study 1 offer a novel contribution to the field and are generative to the thesis aim of developing empirically supported evidence for how universities can best support students in preparing for graduate employment.

In a key implication for understandings about employability, the findings of Study 1 draw together literatures on learning for academic study and literatures on learning for employability that were not previously integrated (see Knight & Yorke, 2004). The support shown for a relationship between SRL and academic performance is in concordance with an extensive pedagogic literature base that predicts that students with higher capacity for SRL will perform better than students who have lower capacity for SRL. For example, students who are competent at SRL are better at achieving goals, find learning easier, and enjoy learning more. Consequently, these students are also

more motivated to learn and less likely to procrastinate (e.g. Pintrich, 2000; Schmitz & Wiese, 2006; Schraw et al., 2006; Zimmerman & Campillo, 2003). And in supporting the prediction that SRL is instrumental in the application of learning action towards the employability capitals of transversal skill sets and careers guidance practices, an implication of Study 1 is that developing SRL in students may be a way to integrate the valued practices of academic study and the valued practices of employability in important ways.

Past research suggests that, unlike academic grades which staff in HE value but employers may not (since the latter may be ambivalent about how high grades in the academic context translate into useful skills in the workplace, see chapter 2), both academic staff and employers value transversal skills. Therefore, if SRL predicts engagement with transversal skills, and engagement with transversal skills (such as project management) are valued by both academics and employers, then an important implication of Study 1 is that the sometimes conflicting demands placed on students to work towards academic performance and employability capitals may be integrated. The ambivalence felt by academic staff towards teaching employability-related skills may thus be alleviated, and the ambivalence of employers towards academic grades may be resolved with a focus on developing students' skills in SRL, since high SRL is predicted to enhance engagement with both academic study and practices linked to employability capitals. Such implications support the movement towards embedded employability curricula outlined by the literature (see Yorke and Knight, 2006), but SRL theory also provides a pedagogic framework by which this work can be achieved.

Study 1 also contributes to empirical research about the processes underlying engagement with work experience. That substantial proportions of participants were engaging in some form of work experience (88%) supports past research that shows

that work experience is often engaged with by undergraduates (see Fugate et al., 2004). But while much of the employability theory considers the virtues of work experience as a given, empirical support for the underlying psychological processes involved is fragmented and disparate, and thus limited. For example, Gbadamosi et al. (2015) report that students with high self-efficacy are more likely to be aspirational, but not more likely to engage in the work experience assumed to support them in achieving those career aspirations. Thus, supporting Gbadamosi et al. (2015), the second key implication from the findings of Study 1 is that there is more complexity in students' engagement with work experience than a straightforward relationship in which motivation (as part of SRL) predicts work experience. The potential for complexity also contributes to literature which examines which students benefit from work experience. For example, Driffield et al. (2011) explain a selection bias, whereby students do better because of a work placement, but that better students do work placements.

In a third key implication for understandings about employability, the findings of Study 1 draw together previously non-integrated literatures about the impact of metacognition, self-efficacy, and epistemological belief on employability. Accordingly, Study 1 provides empirical support for the continued use of metacognition and self-efficacy that are often incorporated into theoretical models, for example in the popular, but practice-driven, USEM employability model (Knight & Yorke, 2004) and CareerEdge model (Dacre Pool & Sewell, 2007). And by extension, also for the empirical work which underpins the attention to experiential learning and reflection opportunities are both supported by and build metacognition and self-efficacy (see Kolb, 2014).

Undergraduate employability is readily explained through a metacognitive lens.

For example, support for a strong positive relationship with the 'project management' grouping of transversal skills can be interpreted through the cognitive dexterity needed to direct learning towards academic and extracurricular activities in complex ways. Metacognition ability sits upon a continuum (Garner & Alexander, 1989), thus students will differ in their cognitive capacity to engage with the complex demands of employability. The findings therefore corroborate research that examines employability and learning strategy. For example, the findings develop the work of Thompson et al. (2013) who, while stopping short of exploring SRL as a theoretical basis for their findings, showed how undergraduate students value extra-curricular activities specifically as mechanisms to help them practice learning strategy towards their employability. The findings also build on concerns that the complex demands of employability engagement serves to disproportionately benefit more academically successful students (Driffield et al., 2011; Reddy & Moores, 2006). This advantage is because these students may have 'spare' cognitive resources to direct their action, but also because they are more likely to nurture self-efficacy through affirmative experiences. By evidencing a relationship with metacognition, Study 1 demonstrates that understandings of employability underpinned by SRL would be beneficial for all, since while students may vary in their capacity for SRL this capacity is conceptualised as malleable and in development.

Study 1 also corroborated findings that point towards self-efficacy being important to employability. For example, Clements and Kamau (2017) show that mastery motivation, arguably an alternative to the construct of self-efficacy, is strongly linked to skills development and self-perceived employability. Gbadamosi et al. (2015) showed self-efficacy as a significant predictor of student career aspirations. Furthermore, findings also support Dacre Pool and Qualter's (2013) report that for a

group of graduates in employment emotional self-efficacy impacts positively on career satisfaction, via a mediator of increased perceived employability. Such concordance offers support that that self-efficacy is important to the ways in which students direct their learning towards a goal of graduate employment, and also that understandings of employability underpinned by SRL would be beneficial to all.

Finally, Study 1 also offers a novel contribution towards an emerging area of research with the sub-construct of epistemological belief. Epistemological belief was shown to have a significant and positive relationship with engagement with academic study and work experience. Such findings are in concordance with the literature. For example, Steur et al. (2012) evidenced a relationship between epistemic growth (including reflective thinking, critical reflection, and understanding) and 'graduateness' (meaning scholarship, moral citizenship, lifelong learning). And Gbadamosi et al. (2015) showed that students who held malleable beliefs about learning were more likely to engage with employability through part-time work. But, as explained in chapter 5, the strength of these relationships was weak and were also presented against a backdrop of insignificant values, negative relationships (non-significant), and less than satisfactory reliability results. Such findings suggest that epistemological belief may play a role, but it is more complicated than as suggested by past research looking at this issue.

Key findings relating to self-efficacy, metacognition, and epistemological belief therefore offer an important contribution pointing to understandings of employability, in concordance with the existing work of the employability field, particularly in relation to the importance of learning, but also offer fruitful avenues whereby SRL can be utilised to theorise student engagement and disengagement with employability.

Study 1 Summary. Study 1 makes an important contribution to understandings about employability, offering SRL as a viable psychological mechanism underpinning engagement with employability. Path analysis showed SRL had a strong effect on academic performance and transversal skills and a medium effect on engagement with careers guidance. Therefore, SRL can predict students' engagement with practices associated with employability capitals, since the overall pattern was students' capacity to regulate their learning was related to their engagement with employability capitals. SRL is useful because it was predictive in expected directions and because its constitution – with attention to metacognitive, motivational, and identity issues - means that it meets the needs of a process approach to employability described in the literature review. A key implication of Study 1 then is that if universities focus on SRL, they can facilitate better academic achievement, since SRL is robustly linked to academic outcomes, and simultaneously facilitates engagement with employability practices that might lead to greater likelihood of a graduate identity and possession of graduate employability capitals. Therefore, the implications of Study 1 are that SRL-informed interventions will meet the two primary aims of HE, education and preparation for workplace, which have in the past been seen as creating contradictory demands on both students and staff and causing conflict in institutions (see chapter 2).

But, while the thesis answered Research Question 1 in the affirmative, arguing for the usefulness of conceptualising SRL as a mechanism underlying engagement with employability practices, close analysis of the findings suggested more complex patterns that needed further interrogation. In particular, there were unsupported pathways with work experience, a lack of engagement with careers guidance and graduate-type work experience, and a lack of a correlation between academic study and the broader employability capitals.

The complexities underpinning students' engagement with employability capitals identified in Study 1, as well as the literature review, point to the importance of analysing students' perspectives. Differences in understandings about what constitutes as 'good' employability engagement have important implications for SRL. For example, an educator may anticipate student engagement because of the salience or prominence of the practice in the educational context, since students expect university education to give them access to better employment prospects, but a student may not engage in employability-related practices due to underlying differences in understandings about the value of that action. As such, there is a need to include the student voice in conceptualisations of employability in order to develop a more nuanced understanding about the processes and factors involved in students' engagement with employability, providing the rationale for Study 2.

8.2.2 RQ 2 how do first-year students understand the different employability capitals?. Study 2 explored student understandings of employability engagement by performing a qualitative template analysis on focus group and interview data from twenty first-year undergraduate students. The students' talk revealed that academic and employability goals and actions were not always in alignment, producing paradoxes and dilemmas for students in themes relating to work experience, and complexities around planning for careers guidance in the present, but also towards future goals. The findings identify some of the factors that might interfere with the relationships between SRL and student engagement with practices that enhance employability, and are briefly outlined below, followed by a discussion of their implications.

Academic study. The students understood employability and education as fundamentally tied together, graduate employment being for them the main purpose of education. However, there were some unexpected consequences for how the students engaged with their learner journey. Academic study was explained as forming one part of a larger overall package of employability capitals. Students' talk included needing to develop as a 'rounded' person, but also tension about how to allocate time, energy, and resources on engagement with employability. The degree would 'open doors' to valued occupations through its presence on a CV, but how much effort the students' directed towards their studies was bound up with their perceptions about what the degree was worth to graduate employers. Therefore, getting the grade (an employability capital) diverted the students' attention from learning how to learn and learning as engagement with self-development.

Thus, while the students perceived employability as a key rationale for their studies, they also illuminated the power structures implicit in the entwining of education and employment. As such, pathways from SRL to employability engagement were disrupted, whereby the value of a degree was diminished to a signifier on the CV and that leads students to being unsure about how to allocate their time and resources. Student talk about work experience further illuminated this dilemma.

Work experience. The students universally understood work experience to be a valuable commodity in the graduate labour market, contributing to their CV, but also as an opportunity to learn transversal skills and engage in self-development. For example, the students spoke about their endeavours to develop good time management and teamwork through their experience of the workplace. Importantly, students consistently described their non-graduate level positions as a valued incubator for their work on the

self, and a site of maturation, learning and growth. Their talk about the importance of such paid work in learning 'how to do' was in stark contrast to the students' focus on degree outcome detached from their engagement with learning, especially since many educators would recognise the value of skills in the academic context, for example, through the timekeeping and group work needed to manage academic workloads.

Students' talk about work experience also indicated considerable complexity, dilemmas, and challenges in linear pathways from participation in HE to work experience. The students did not perceive access to work experience as easily assessable for all, arguing, for example, that they needed experience before they could gain experience, and that there was a shortage of quality opportunities, particularly in areas that aligned with sought-after career pathways. Thus, while the students perceived work experience as a necessity for graduate employability, they troubled their own capacity to gain this capital and considered access to opportunities (graduate and non-graduate) fraught with challenges. Student talk about careers guidance further illuminated their nuanced experiences of employability.

Careers guidance. Understandings about the role of careers guidance to graduate employability were more abstract than talk about academic study or work experience. Professional careers guidance was either absent from the discussions or spoken about as unnecessary in the early stages of a degree. The generation of a CV was a priority, but while the likelihood of employability engagement was driven by 'how much' the capital would contribute to their employability profile, there was limited sense that this knowledge came from professional instruction. The students placed a great deal of emphasis on having a career goal, or needing to know 'what they want to do' before they should engage with careers support. For some students this concern manifested

as a means to 'buy time', where HE represented as a method of delaying the transition into graduate employment, and this suggested a need to wait until the time was right to access careers support.

Overall, the first-year students lacked imperative to engage with careers guidance activities and viewed such action as for the future. Further, they devalued the role of formal careers guidance towards their employability. Professional careers guidance was paid little attention, whether as a means to explore career pathways or to practice their presentation of the self. This was in contrast to the way students sought out and valued informal means of support, since most students had accessed careers support through informal social networks, for example their friends, family, and teachers (or academic staff).

Study 2 outlined the potential for differences in value of employability capitals to interfere with students' decisions about whether or not to engage with employability. Academic study was valued as a signifier to graduate employer, but devalued as a learning experience. Work experience was valued as a site of growth and development, but understood as not accessible to all. Students valued having a career goal and accessing their informal network for advice, but professional careers guidance lacked presence and was viewed as a future pursuit. Through the lens of employability as a possession, engaging in these practices allows students to develop and thus 'possess' valued attributes which then position them in more or less valued ways in the graduate labour employment.

Mapping Study 2 onto the findings of Study 1. The complexity between academic study and the broader employability capitals suggested in Study 1 play out in the qualitative analysis of Study 2. In the students' troubling of the degree's relationship

to graduate employment, employability engagement was visible as a contested space whereby employment was central to the student's rationale for undertaking a degree, but also an antagonist to the student's relationship to engagement with the broader capitals. A striking observation was the concordance with quantitative data in Study 1, where academic study only weakly correlated to work experience and not at all to careers guidance and transversal skills, and the qualitative data in Study 2 where students described not seeing a relationship between these factors. Therefore, the findings of Studies 1 and 2 illuminate how students' devalued understandings of employability capitals impact their capacity to direct their learning towards graduate employment.

There was also concordance between the findings between Study 1 and 2 that showed that while most students engaged in non-graduate work experience (for example bar work or retail), far fewer engaged with 'graduate' type work experience, even for short periods. Study 2 shed light on this pattern, with participants explaining that they found value in a range of work experience, and believed that participating in non-graduate roles developed their skills. It is noteworthy that few of the students cited earning money as a reason for their part-time jobs. While the students may be driven to work for economic reasons, when asked about employability, money did not form a part of their rationale. Study 2 also showed that students might not reach out to graduate level roles because such roles are absent from their thinking or because they perceive them to be inaccessible. Study 2 also helped interpret the findings of Study 1 that SRL was not associated with work experience engagement, since students perceive other barriers to accessing graduate-level work experience that were unrelated to their capacities to learn (e.g. a lack of access to this work due to needing experience to gain experience). This finding opens up the worrying prospect of disadvantage for students with fewer resources, chiming with Study 1, where students from lower socio-economic

backgrounds were less likely to anticipate help in finding work experience in the future.

Study 2 also built on the findings from Study 1 in ways that accounted for interferences to the SRL/ career guidance pathway. Study 1 supported that SRL predicts careers guidance engagement, but this was set against a backdrop of 60% of students reporting no engagement with careers guidance in the previous 12 months. Combined, these findings suggest that other factors may mediate a student's likelihood to use careers guidance even when they have high SRL. The students in Study 2 provided narratives about readily accessing informal careers guidance such as through friends and family. The findings also showed the potential for students to resist engagement due to a focus on self-development or the absence of a career goal. Together the implications of these findings are two-fold. If the goal is to encourage engagement with professional careers guidance then attention to SRL is important, but developing SRL may only be effective if the gap in awareness about the value of professional careers guidance to employability is also addressed.

Implications for understanding (including contribution to theory):. There are powerful discourses which entwine participation in HE and graduate employability. Study 2 builds on thinking about valued employability practices as capitals in a number of new ways. First, the findings support work that examines how motivation to participate in HE affects employability, showing why for example, Rothwell (2008) found that student motivation to engage in studying is the lowest predictor of self-perceived employability. Rothwell argues that a motivated student does not, therefore, necessarily translate to positive beliefs about their positioning in a graduate labour market. Secondly, the findings also support work which examines how students translate their HE experience to the workplace. For example, Pirog (2014) showed how

students struggle to articulate the relevance of discipline content and academic skills to the workplace. Study 2 findings also indicated how a student focus on employability can reduce their motivations to engage with academic study, since students feel they have to divide their attention and other resources to what are experienced as competing requirements and/or consider academic performance as a route to a graduate level job rather than learning as a process of intrinsic value. The paradoxical concerns that studying does not lead to employment and that employability does not including studying also draw parallels with Tomlinson's (2008, p.58) notions of 'education as a return', whereby student attention is focused on the potential for employability capitals to 'open up' employment opportunities over and above the inherent value gained from that learning.

Study 2 also contributes to the literature on work experience and employability. There is a range of research suggesting that work experience is an important site for skills development. Reddy and Moores (2012) showed that students who participated in a work placement achieved significantly higher final year grades and were rated as having higher skills by academic staff. Other empirical work has demonstrated the value of experiential learning to employability (see Lubit, 2001) and that engagement in work experience is valued by employers over and above academic grades (Bennett et al., 2008; Branine, 2008). The findings of Study 2 are in concordance with such research, showing how students also value work experience for transversal skills development. Also, the devaluing academic study and prioritising work experience chimes with Brown's (2003, p.27) employability work about an 'economy of experience' whereby experiences outside of academic currency take precedence.

But Study 2 findings diverged from the current literature in how work experience activities are often placed in a value hierarchy, with graduate-type roles holding more

value because they are perceived as more likely to lead to students having the skills and knowledge that will allow them to gain graduate-level employment (Brown et al., 2003; Cranmer, 2006). In contrast to this academic literature, Study 2 showed that students did not construct such a hierarchy. Rather, they emphasised the value of their part-time, non-graduate jobs towards their employability, understanding their work experience as a site of personal development, self-efficacy, and enhanced employability.

Differences in understandings about work experience are in concordance with reports of a 'cultural gulf' between employability stakeholders' understandings of what constitutes as skills or being skilled (Leveson, 2000, p.157). The findings of Study 2 suggest that one aspect of this 'gulf' is in relation to categorising work experience hierarchically and not recognising the developmental gains students experience in more mundane work. For example, skills such as timekeeping, working in teams etc. can be transferred to future graduate level employment. That non-graduate employment afforded rich talk about maturation and growth also suggests that a focus solely on graduate work experience in the HE setting is missing something important about maturation and preparation for the workplace. Thus, the findings of Study 2 suggest that current employability practices and perspectives that only recognise the capital of graduate-level work experience risk devaluing the students' experience and thereby undermining their self-efficacy.

Study 2 also contributed to the literature on students' engagement with careers guidance. The students saw university as a pathway to graduate employment, but also a pathway to choosing a career path in a process that might take some time. This set up a conflict between how students saw the relationship between time at university and choosing a career path and the messages they received from university careers guidance services that they should arrive at university with clear career goals. These findings

are in concordance with a general embracing of fluid graduate identities and protean careers by students in HE (Nystrom et al., 2008), and that students value opportunities to explore career development opportunities as part of the HE journey (Buchanan et al., 2007). But through a focus on academic staff as legitimate sources of career knowledge, the findings also speak to research which warns that employability places an inappropriate burden on academic staff, since such work may be outside of their skill set or discourage engagement with specialist careers support (Morrison, 2013).

Study 2 findings also contribute to a developing area of research which focuses on temporal aspects of employability, particularly how 'the future' and career aspirations conflict with notions of employability as self-improvement. For example, Stevenson and Clegg (2011) showed that not all students could easily imagine their work-place futures, with implications for their capacity to direct action accordingly towards employability. Study 2 reports similar findings, which when analysed through an SRL lens (whereby students need a goal by which they can plan their action across time) significantly builds on the work of Stevenson and Clegg to suggest that without a clear career goal (yet aware they 'should' have one), students are caught in a liminal space, neither directing action towards a graduate aspiration nor fully committed to academia as self-exploration.

Study 2 Summary. Study 1 established that underlying cognitive SRL is predictive of learning action towards the employability capitals of academic study, careers guidance, and transversal skills. In Study 2, students spoke about directing their action towards the employability capitals, but also provided insights into the challenges of strategically managing their efforts. By doing so the students provided examples of Bourdieu's (2011, p.46) 'accumulated history', whereby the values placed on particular actions

are always situated as part of a complex social fabric. For example, across Studies 1 and 2 the degree was acknowledged to offer enhanced positioning in the graduate labour market, but its ubiquity undermined this value in the context of many other students holding this capital. Students understood academic study as a means to qualification rather than a learning process. Work experience facilitated a learning process but not always in the ways valued by graduate employers, and the role of careers guidance was under-recognised by students beyond the development of a career goal. These forms of sense making undermined students' efforts towards both learning and gaining employability capitals. Students acquisition of employability capitals was further problematised by what was experienced as competing demands upon their time and energy from employability engagement. These findings highlight the limitations of a possession or position approach to employability in the literature.

The process approach sought to address such concerns, which, as described in chapter 3, highlighted the role of identity as well as students' sense making of the wider employment context (for example, employer-driven demands for skills and experience). Identity is thus a central tenet of the graduate attributes process approach to employability, which focuses on encouraging students to develop a graduate identity and an orientation towards wider professional development. Identity is also important to employability because it is central to the theoretical conceptualisations of SRL as the 'compass' for learning, with learning towards employment only predicted to take place when understandings about employability capitals are salient to the student's identity. Therefore, having established pathways between SRL and employability capitals, but also the potential for these pathways to be disrupted by students' identities, the next step was to explore how identity may operate as a mediator between SRL and employability capitals through the third research question of this thesis.

8.2.3 RQ 3 how do final year students negotiate issues of identity around employability?. In order to address this research question, Study 3 interrogated how final-year undergraduates made sense of their employability as they prepared to transition to graduate employment. Three final-year undergraduate students, Nick, Trudi and Marco, were interviewed in a single focus group, the data from which were analysed using Interpretative Phenomenological Analysis (IPA). This analysis provided novel insights into engagement and disengagement of employability, including the paradox of needing experience to gain experience, experiencing unequal capital in social networks, and the sometimes adverse implications for identity for students as they negotiated their past experiences, developmental maturation, and complex social and institutional contexts.

The students affirmed employability and enhanced performance in the graduate labour market as core priorities. Nevertheless, each differed considerably in their sense making of employability engagement. Nick was described as 'engaged', whereby he spoke freely about his strategic engagement with multiple employability capitals with a goal of entering a specific graduate career pathway. In this way, Nick's approach to employability conformed to the archetypal expression of employability in the HE policy context. Trudi and Marco demonstrated a more problematic engagement with the construct, with shared narratives of resistance and rejection. Together the students' engagement with employability illuminated the paradox outlined in the literature that students can be knowledgeable about the demands of employability, and may also be motivated and aspirational, but yet they fail to plan, monitor, and evaluate their employability learning towards their goals in the graduate labour market. A double-bind exists for students, since they may be developmentally immature with regard to

their capacity to engage with SRL, but also immature in their novice status at being employable (certainly in the graduate sense). As such, while the students readily spoke about needing to engage with a range of employability capitals to be employable, they also outlined the ways in which employability engagement, or needing to engage with employability, could have negative ramifications for student identity. The findings therefore showed how well-meaning employability practices could be resisted as well as adopted by students.

A key finding was that while the degree acted as an important signifier of being a graduate, a focus on experiential learning obtained through work experience took precedence. The students' sensemaking about work experience was explained, in their words, as 'doing stuff'. The doing of stuff provided a means for the students to describe engagement with work experience with the anticipated reward of enhanced positioning in the graduate labour market, but also highlighted the potential for a generic or 'scattershot' approach to their action. In particular, while the student's talk of 'doing stuff' affirmed the learning cycle through a focus on experimentation and reflection, they also consistently differentiated the doing of stuff from 'stuff learnt' in ways which located academic study as peripheral to employability. This created a further paradox when viewed in the context of the findings from Study 2, suggesting that students may experience being 'stuck' between employability as meaning evidence (through grades and a quantified CV), but also through an embodied value in 'doing' via their endorsement of experiential learning. The tension of how to strategically manage engagement with employability capitals, balancing possessing capitals with the process of doing, therefore produced a troubled space for the students, whereby their decisions about whether to engage with an employability capital would sit apart from their underlying capacity for SRL.

Requirements to engage in institutionally endorsed employability practices were also shown to produce contradictory responses in students who wanted to gain employability capital while also remaining authentic. The pairing of IPA and focus groups allowed for deep interrogation of these issues. The participants talked about the challenges of authentic and inauthentic identities. For example, students could present their hard work towards employability as authentic, but they acknowledged that this level of endeavour might fail to meet the bar of being impressive in a competitive environment. The participants also identified themselves and others as implicitly knowing how to be, or consent to be, 'charismatic'. For example, Nick explained himself as ruthlessly strategic about 'playing the people' in order to access work experience. Although the focus group interactions showed how a shared understanding between students that 'playing people' was an inauthentic way to interact with others, Nick was able to make claims of authentically being inauthentic as an employability skill. For other students, being strategic in this way could produce dispreferred identities so that they were motivated not to engage with employability practices endorsed by their institutions. For example, Marco's authenticity manifested through a rejection of employability practices. To argue his rationale, he described other people as gatekeepers who would serve to block his employability, drawing upon his mother's experience of being skilled and experienced, thus working hard, but with no discernible benefit. The students' sense of authenticity was tied to their ability to use social networks towards the attainment of employability capitals and capacity to present themselves to advantage in a competitive graduate labour market. The challenge of managing social capital and maintaining authenticity therefore produced a troubled space for the students', whereby their decisions about whether to engage with an employability capital would also sit apart from their underlying capacity for SRL.

Study 3 interrogated the student voice to understand more about how students make sense of their employability engagement in a complex and troubled space. The findings illustrate the considerable complexity and challenges that students may face as they seek to reconcile their 'authentic' identity with identities necessitated by the demands of employability. Underlying the discourses of 'effort in-rewards out' are ideals of meritocracy and of the equally resourced citizen. But the findings of Study 3 (and 2) showed that not all students perceive HEIs to provide organisational cultures that are underpinned by meritocracy and equality, thus despite HEIs having explicit commitments to equality, there remains potential for students to engage in unexpected ways towards their employability.

Implications for Study 1 and Study 2 (Integrating the three studies). Study 3 builds on the findings of the thesis with examples of the multifaceted ways that students make sense of employability. For example, Trudi's reluctance to identify herself as active in the process of gaining skills provided a striking concordance with Study 1, where women showed lower self-efficacy in combination with higher skill levels. Study 3 also highlights the way that students may draw upon their cultural knowledge base to make decisions about their employability strategy. For example, while participants were not asked to report their SES background, Marco offered indications of his heritage in a working-class community, for example, such as his mother's jobs in unskilled/semi-skilled professions. For Marco, the degree represented an alternative to blue-collar roles, but he also suggested that he may be excluded from the lucrative rewards of inheritance that Nick exemplified because of a lack of cultural knowledge about career pathways. Secondly, Marco's life experience had taught him that employability engagement does not necessarily lead to material reward, which

provided an explanation for his resistance to, and lack of motivation for, engagement with the employability capitals, again in contrast to Nick who drew on his middle-class father's narrative of a linear progression from university to graduate level employment to structure his expectations of graduate level employment which provided motivation to engage with the employability capitals and resilience in the face of adversity.

The patterns of engagement and non-engagement found in Studies 2 and 3 supported the use of a multifaceted model for employability to account for individual, cognitive, and social factors in students' engagement with graduate employability, while highlighting previously unconsidered but significant challenges to those tasked with understanding employability engagement. For example, the imperative to engage with employability may have negative ramifications for student identity when a focus on employability capitals neglects to include differences in student's ability to access opportunities, reducing the student's motivations to engage with employability practices.

Implications for understanding (including contribution to theory):. Study 3 drew upon the student voice to understand more about the challenges of establishing a pre-professional or graduate identity as graduation loomed. In so doing, it addressed the paucity of the student voice in employability research and demonstrated its importance in better understanding students' engagement with employability capitals. In particular, Study 3 showed how students experience employability as complex and difficult. The findings are in concordance with Allen-Collinson and Brown (2012) who report the tremendous burden on contemporary students as they seek to assimilate norms through the establishment of a 'new' graduate identity. This burden is especially strong given that standard-entry students are within a period of identity transition (see Tajfel, 2010),

while also being required to assimilate identities which respond to the fluid and flexible demands of a protean workforce (Hall, Zhu, Yan, 2002; Leach, 2015). In responding to this complexity, Holmes (2015) called for a 'process' approach to employability to integrate different thinking towards capitals and 'becoming 'employable in affirmative ways for the student. This thesis pushes this thinking further, arguing that in pursuit of understanding a process approach to employability, the construct of SRL offers a fruitful framework to understand student engagement with learning towards graduate employment and synthesise the important considerations around positive employability identities. The findings of Study 3 thus hold implication for understanding possible employability identities through an SRL lens, outlined below.

Students are under pressure to manage their time and resources towards a goal of graduate employability. They need to see the value and efficacy in engaging with employability to acquire academic, learning, and personal skills, and paradoxically, they need to possess prerequisite skills in order to gain those skills (Bennett et al., 2008; Branine, 2008). But students are also shown to be lacking in sophisticated understandings of the graduate labour market, impeding their engagement with employability and encouraging a neglect of a long-term investment of the self (see Bates & Kaye, 2014; Moreau & Leathwood, 2006; Tomlinson, 2008). The findings of Study 3 corroborate these points. Students were acutely aware of the demands of employability, but there was a striking lack of an observable identity to synthesize these demands and nor was there a consistent value for or access to the employability capitals. Such complexity led to the rejection and resistance of employability engagement even when the students were aspirational.

The findings of Study 3 offer novel insights into an emerging interest in the 'super complexity' of demands upon students to assimilate discourses from

multiple stakeholders (Kreber, 2014, p.91). The importance of a synthesised academic/employability identity are also in concordance with, and build on, research which shows that learning strategy forms an important part of being successful towards graduate employment. Thompson et al. (2013) showed that while many students engage in a range of extra-curricular activities that could be linked to employability, far fewer engage with the strategies needed to drive this action towards a career goal. Similarly, Kavanagh and Drennan (2008) showed that students value engagement in continuous learning, but that this learning is driven by their perceptions about what particular skills are valued by employers rather than an appreciation for learning. The findings of Study 3 build on this fragmented knowledge. Nick, Trudi and Marco's approaches to employability resonated with metacognition and self-efficacy in ways characteristic of SRL models (see Kolb, 2014; Lubit, 2001; Schraw et al., 2006). Thus, the students wanted to engage with employability because they felt that this would help them to learn and access more opportunities in an experiential learning cycle. But their understanding manifested as an implicit value in the process of doing in the work experience context, and they were not able to contextualise this value within the broader employability framework.

Study 3 also provides novel additions to the debates surrounding employability engagement and transversal skills. The literature relating to skills in HE is often polarised, with proponents of skills and those who warn of a 'skills agenda', both of which are concerned with a shift away from discipline content and towards generalist skill-sets relevant across employment fields. For example, while employability theory is often tasked with driving students towards skills, many theorists warn of the risks of simplifying valued skills and practices (see, for example, Bridgstock, 2009 and Daniels and Brooker, 2014), or as Holmes (2013, p.543) put it the lure of a 'plethora of lists'.

As discussed in this thesis, Holmes (2015) encourages a move beyond notions of what employability capital a student 'holds' and towards processual thinking about how a student moves towards being an employable citizen and the emergence of a 'capable' graduate identity working towards the attainment of skills. Study 3 unpacks what such a processual employability 'looks like' from the student perspective, offering important support for the utility of SRL in this process but also revealing some of the tricky issues relating to identity through authentic and inauthentic practices.

Such complexity in the students' accounts of employability also links to broader arguments in the critical literature, such as notions of a declining or devalued role of HE in a skills-driven market, employability as a threat to intellectual integrity, and employability as a contributor to the commercialisation of HE (Chertkovskaya et al., 2013; Harvey, 2000; Ratcliffe, 2013; Tomlinson, 2008). Also, Study 3 findings reflect arguments about impact of neoliberal discourses on the student as they manage their learning in complex ways. For example, (Reay, Crozier, & Clayton, 2010, p.1115) warn of 'superhuman' levels of motivation, resilience, and determination needed to approximate to the 'ideal learner'. Therefore, while Study 3 data supports the process approach as a means to nurture employability engagement, it also troubles some important issues for HE, and broader society, to attend to.

Finally, the findings also build upon literature that investigates the relationship between HE, employability, and meritocracy. The findings corroborated Brown and Hesketh (2004, p.126) notions of 'player' and 'purist' employability identities. Nick understood his employability as the skill of 'playing other people' or being charismatic, thus incorporating social networks into his authenticity in ways which supported his 'effort in-rewards out' version of employability. Trudi and Marco revealed other 'purist' approaches, where remaining authentic involved a scepticism towards the automaticity

of effort and reward, understanding instead that employability could be out-of-reach, sitting beyond their control in ways which held implications for SRL. Underlying the discourses of 'effort in-rewards out' and authenticity are ideals of meritocracy and of the equally resourced citizen.

To understand the notion of opportunity, or meritocracy, Bourdieu uses the metaphor of a game (see Maher, 2011), whereby every domain of life has explicit and implicit rules which govern behaviour. But competence to play the game may be unequal, with some lacking the cultural capital that facilitates success in that context. Thus, while simplistic understandings of employability may assume a level playing field, it is clear that some students have less access to resources and opportunities with which to work towards graduate employment. Therefore, the findings also corroborate literatures that examine those excluded or disadvantaged in the employability game. For example, students from lower SES backgrounds are known to have fewer professional networks (Allen et al., 2013). In Study 3, Marco resisted engagement with employability, but accounted for his lack of action through critical understandings about the value of employability and issues of authenticity, while Trudi's narrative exposed the potential for gendered workplace expectations of women (see Riley & Evans, 2017). Brown and Hesketh (2004) stress that as graduate numbers increase, so will the emphasis on a wide range of employability capitals, holding implications for social mobility and those with impoverished access to opportunity. Thus, the findings build on literatures that warn against assuming all university students are well resourced and socially connected, and indicate the need to support students from a wide range of social backgrounds to engage with employability practices equally.

HE widely acknowledges that when thinking about employability 'one size cannot fit all' (Eden, 2014, p.275). Schraw's enduring intention when mapping SRL was to

facilitate productive scholars in ways that are pedagogically inclusive and not reductive to traditional notions of intelligence (see McCrudden, 2016). SRL thus offers fruitful lines of direction for employability pedagogy, building upon calls in the literature to build on notions of what employability capital a student 'holds' and towards processual thinking about how a student moves towards being an employable citizen. Using an SRL framework can account for the psychosocial aspects of employability to enable HE to engage ethically with the challenges diverse groups of students might face when regulating their learning towards graduate employment. Finally, an SRL framework to employability offers an opportunity to alleviate some of the criticisms and challenges of the field.

8.3.0 Implications of the thesis for interventions

Students need to see the value and efficacy in engaging with employability, to acquire academic, learning, and personal skills, and paradoxically, have skills in order to gain those skills. This complexity means that while many students engage in a range of extra-curricular activities that could be linked to employability, there are known to be far fewer who engage with the strategies needed to prepare for graduate employment (Thompson et al., 2013). This thesis explains why far fewer student engage with these strategies by drawing together the process and possession approaches, suggesting that part of the process of identifying as a graduate, and working towards graduate employability, is being able to self-regulate one's learning. Furthermore, self-regulated learning, coupled with a graduate identity orienting students' learning towards employability practices, is the mechanism underpinning engagement with employability capitals. A graduate identity needs to be developed in line with the resources students have (for example, non-graduate level employment), and align with

valued identities of students (for example, authentic recognition of people).

Since SRL is shown to predict engagement with employability capitals, then evidence-based employability interventions should work on all aspects of SRL. Implications for metacognition, self-efficacy and employability identities are outlined below.

8.3.1 Key Implication 1 = Attention to metacognitive ability is important.. A key implication of this thesis is that metacognition is important when thinking about employability interventions. Metacognition is a well-established construct referring to a person's capacity to gain knowledge about learning and then systematically monitor, regulate, and reflect on their action towards a future-orientated goal (Schraw & Dennison, 1994). Metacognitive informed pedagogies are readily visible in HE whose emphasis on reflection and experiential learning is based on a wide literature (Moon, 2004; Robertson et al., 2012; Simatele, 2015). Murakami et al. (2009) used reflections on workplace dilemmas to encourage employability development in undergraduates. Lairio, Puukari, and Kouvo (2013) showed that reflections on professional identities promoted the development of thinking skills, but crucially, many interventions are limited to the provision of information, such as advising students to participate in action rather than explicit instruction designed to promote metacognitive growth (Hargrove, 2013; Wagner et al., 2014). The findings of this thesis therefore support instruction in metacognitive processes alongside reflection and experiential learning.

Drawing upon metacognitive theory also offers affirmative pathways to inform employability interventions. Metacognition is 'teachable', but metacognitive maturity is not achieved until mid-to-late twenties, if at all (Pintrich, 2000; Zimmerman, 2008). Therefore, for some standard-entry students at least, engagement with strategic learning

management will be challenging because of the cognitive demand, but also because they may be developmentally immature. There are other characteristics which are important for employability. Metacognition is theorised as separate from 'intelligence' (Swanson, 1990) and sits apart from subject-specific knowledge (Schraw et al., 2006) meaning that interventions are suitable across the continuum of academic ability. Metacognition is also a proactive rather than reactive construct (Zimmerman, 2005). Smith et al. (2007) highlight the demand on undergraduates to students to 'future think'. An SRL approach would thus support students in working on their employability untethered from students' beliefs about an 'optimal' time, which was present across the findings about careers guidance.

Study 1 showed that attention to employability without attention to metacognitive status may be unsuccessful, but SRL theory also determines that metacognitive status alone is not sufficient to result in learning action. A student with higher metacognitive ability, but who lacks motivation may resist engagement. An important aspect of motivation is self-efficacy, which is discussed below.

8.3.2 Key Implication 2 = Attention to experiences which build self-efficacy are important.. A second key implication of this thesis for interventions is that self-efficacy is important to employability. Self-efficacy is the dimension of SRL which refers to the beliefs that people hold about their ability to perform a task (Bandura, 1977). The broader learning and motivational literatures consistently suggest that people with high self-efficacy will be more successful at tasks because their positive performance beliefs act as a motivator for action (Schunk & Zimmerman, 2007) and the present thesis supports this in relation to directing learning towards employability capitals.

Drawing upon self-efficacy theory offers affirmative pathways to inform employability interventions. The main predictor of self-efficacy is successful performance at a task, while perceived failure reduces the individual's self-efficacy (Bandura, 1986). A main source of affirmation in the academic context is degree classification, but performance tends to sit upon a bell curve, so that in any cohort, the majority of students will not be elite students. This raises questions over how lower performing students can develop self-efficacy towards their employability when they may have limited opportunity to build self-efficacy through gaining high grades. To resolve this impasse, HE needs to engage with the alternative opportunities to build students' self-efficacy outside of the grading system.

People who have had the opportunity to practice and develop expertise are more self-regulated than novices (Schraw et al., 2006; Zimmerman, 2008). But employability demands complex learning engagement, potentially before students achieve the developmental maturity to facilitate this action, but also before they have experience of the workplace environment they are efficacious towards. Such considerations are developed by the thesis' findings that academic performance and work-place social self-efficacy are unrelated. Thus, even students who build self-efficacy through their academic performance will not necessarily translate these beliefs about their performance to the workplace. Therefore, HE needs to engage with the opportunities that students have to build self-efficacy outside of the academic environment, but also to recognise that opportunities for developing self-efficacy exist where students themselves find value (such as their part-time jobs) rather than the value systems of other stakeholders.

In addition to metacognition and self-efficacy, this thesis outlined identity as important to employability. Identity is central to SRL theory because it is the 'compass'

for learning, whereby the beliefs and perceptions a student holds about learning as part of their identity will be central to their decisions about what learning to engage with (Boekaerts et al., 2005).

8.3.3 Key Implication 3 = Attention to a cohesive employability identity is important.. A final implication of the thesis is that attention to cohesive student employability identities is important. Drawing on Giddens (1991) notion of an 'identity project', students are engaged in an active sense-making process to assimilate the institutional and societal structure of the graduate identity into their own work on the self. This thesis reported significant complexity in how a graduate identity might interact with other identities and social locations of a student, with the risk that a graduate attribute approach without attention to factors such as learning and access to capitals can be a destabilising rather than affirmative experience, particularly for the most vulnerable students. For example, the complexity of managing learning towards employability was outlined to risk the student's employability identity but also their academic identity, both of which could adversely affect their self-efficacy and attainment. Also, through contradictory and ambivalent narratives about the degree as a capital of employability, the students devalued education for education's sake as a form of self-development, but neither did they understand education for employability as part of a long-term investment in the self. Therefore, attention to cohesive employability identities, which attend to the top-down priorities of employability, but also pay attention to the bottom-up experiences of students are important. Universities need to shift towards approaches which emphasise the active role of learning to learn and draw together academic and employment goals as a cohesive identity so that students can affirmatively regulate their learning towards graduate employment.

Study 1 showed that the learning structures applicable to academic study also apply towards employability; and that the principles of good academic learning are also important to engagement with employability. But the critical literature base warns of the declining role of academic credentials in a contested graduate-labour market (Tomlinson, 2007). Brown et al. (2003) suggest that a student's worth is no longer evaluated by academic currency, but instead by the economy of work experience. However, there were limited positive work identities available to the participants in the context of these dilemmas and barriers. The students perceived themselves as beholden to the whims of graduate employers, as being potentially indistinguishable from many similarly qualified candidates, and as being disadvantaged by their lack of a clear career pathway. Therefore, for these students, this economy of experience also brought with it potential harm to self-efficacy through their lack of means to situate their academic efforts, combined with barriers to accessing valued forms of work experience.

SRL has the potential to reconcile the sometimes conflicting and competing demands of academic and employability goals in HE for both students and staff since SRL provides a pedagogical basis for helping students to develop both their academic and employability practices and, perhaps also for reducing some of the resistance by academics to including employability in academic curricula.

The literature base warns that employability interventions are often based on the assumption that students have a career goal (Artess et al., 2017), or that students automatically work towards employability in a linear or 'rational' way (Greenbank, 2014; Jackson, 2014a). In this thesis, the students often highlighted a lack of a clear career goal, but also that this lack of a goal problematised their engagement with employability capitals. Also, while the students of this thesis valued employability and a range of employability capitals, there was a limited sense in which this engagement

with employability practices corresponded with broader or life-long commitment to learning or work on the self. Nurturing employability identities which draw on the SRL framework would allow the student to build employability learner identities which are resilient – prioritising the learning cycle over and above a hierarchy of capitals, and bridging the gap from employment during their HE learner journey, but also with an 'eye to the future' for individual wellbeing and career progression. From this perspective, identities rooted in SRL can support students in building the resilience demanded by thinking about their future career goals because energy is reoriented to nurturing a student's capacity to engage in self-regulated learning and trusting that they will seek out opportunities to grow and develop in ways which can be translated to the workplace. By doing so, affirmative avenues are opened up where HE can work together with students to develop the skills for future labour demand, but also in ways that support their role as active citizens as defined by those engaged in the process of lifelong learning (Bridgstock, 2009).

A further implication for SRL informed employability identities is that the SRL framework includes the potential for inclusive approaches to employability engagement. Currently, by focusing on employability identities which prioritise the possession of employability capitals over and above the learning process that leads to employability capital, HE and employers serve to reinforce the existing capital of students. Employability interventions risk excluding or disadvantaging students based on their access to resources, whether material or social. Clegg (2010, p.351) described employability as 'a disposition towards the future based on continuous improvement and self-promotion, but the acquisition and valuing of such dispositions are in turn heavily marked by inherited cultural capital and class'. By acknowledging the potential for current employability practices to produce conflicted

or negative identities, identified in the critical literature and through the students' lived experience analysed in this thesis, HE could engage with the variability in students' SRL and how access to employability capitals may work for or against their engagement in graduate employability. Furthermore, taking up identities that mainstream employability demands may be experienced by students as inauthentic. So the reorientation of employability back to evidenced based learning theory may also buffer against disengagement from the values practice because of a disconnect between employability rhetoric and students' lived experience. Interventions underpinned by SRL are more likely to produce affirmative graduate identities, because students retain the autonomy to direct their learning in ways which are meaningful to them. Also, when the learning process is valued over and above a capital hierarchy then such work is sympathetic to the differences in developmental, cultural, and material resources held by diverse student populations.

By bringing together SRL theory, Holmes' process approach and Bourdieu's notion of capitals, this thesis has made a significant case for SRL as a fruitful way to understand the psychological processes that underpin differences in students' engagement with of graduate employability. SRL therefore has the potential to provide evidence-based employability interventions providing that the complexities of social context are recognised, that identities align with the valued practices of students, and that these identities link towards the demands of graduate employment. In particular, the development of identities which incorporate notions of employability more readily into scholarship may support inclusivity through a drawing away from employability capitals (which can be resource limited) and towards notions of productive scholarship. SRL informed employability identities would also be more inclusive because they could accommodate difference across the learning continuum and sit apart from achievement

which is readily recognised through the grading system of academic scholarship, which is weighted towards elite performing students. By redirecting pedagogic attention back to SRL, such identities could allow students to develop resilience through a deeper awareness of self-development, career processes, and strategies for how to circumvent challenges. Such thinking also contributes towards the called-for change in discourse which embeds employability and skills development as part of an employability scholarship, but also in ways which validate and recognise critical perspectives of employability as a risk to intellectual integrity and academia. The findings of this thesis therefore suggest that drawing on the principles of SRL would enable students to be envisaged as lifelong, critical, and reflective learners, and encompassing their engagement with employability practices.

8.4.0 Contribution of the thesis

The overarching aim of the thesis was to develop empirically supported evidence for how universities can best support students in preparing for graduate employment. Interest in the psychology of employability has gained momentum over the last two decades (Williams et al., 2015). However, the disparity of empirical research findings indicates that employability is a complex concept that is hard to implement successfully. Addressing this problem, the thesis represents an ambitious project that draws together a range of perspectives on employability, allowing psychological, sociological, learning, and employability literatures to inform each other and deepen understandings about contemporary thinking on learning towards graduate employment. Part of this ambition was in the use of qualitative and quantitative methods, whose analyses allowed for deeper interrogation of the student sense-making about their engagement with employability. Similarly, in bringing together SRL, Holmes and Bourdieu, the thesis

offers a framework to capture the dynamism of employability and to highlight the importance of developing discourses of employability that recognise the value gained from engagement with employability capitals, while shifting attention towards the learning process. The thesis thus offers SRL as a framework for thinking about the challenges of employability engagement for undergraduate students and indicates future directions for interventions such as metacognitive instruction and raising student self-efficacy.

The thesis contributes to existing literature in four main ways: Building a bridge between learning and employability literature; interrogating employability identities; developing the application of mixed-methods to work in this area, and by contributing to the call for evidence-based models of employability. Each is outlined below.

8.4.1 Key contribution 1 = Self-regulated learning literature. There are no studies that directly investigate whether SRL predicts engagement with employability. A contribution of this thesis is the provision of empirical support to the argument that self-regulated learning is an important cognitive driver of engagement with employability capitals. The underlying capacity to engage with learning is a neglected aspect among models that inform pedagogic approaches to graduate employability (Kavanagh & Drennan, 2008). Academic study and capacity to learn are entwined, but the pathway between academic study and learning for employment is less clearly articulated. Although there is abundant theoretical literature on the utility of metacognition, self-efficacy and epistemological belief to learning, both the contribution of the uniqueness and the interconnection of these constructs within the employability context has to-date been under-investigated (see Dacre Pool & Sewell, 2007; Malar & Choe, 2010). By demonstrating the utility of SRL as a predictor of employability engagement, this thesis

therefore contributes to and builds upon emerging debates of the HE and employability fields.

People who are high in self-regulation both understand and can strategically manage their learning towards goals across both time and domains (e.g. Schraw et al., 2006). Van der Heijde (2014) proposed that self-regulation in the workplace bridges a range of employability theories, going so far as to say that conceptualisations of employability often map directly onto models of SRL. Such a proposition makes sense, since if employees are orientated towards protean careers then by its very definition this indicates workers who are proactive and self-regulative. However, although an empirical foundation underpins our knowledge of SRL, and elements of SRL theory are visible in the employability literature, this thesis contributes in important ways to address the underrepresentation of learning theory within the construct of, and research into, employability in the HE context. By arguing that SRL informs employability engagement, this thesis therefore takes a well-developed learning construct and applies its principles in novel ways to thinking about employability in the HE context. In particular, it provides a pedagogical basis for helping students to develop both their academic and employability practices, and has the potential to reduce some of the resistance by academics to including employability in their curricula by aligning learning for academic performance with learning for employability.

8.4.2 Key contribution 2 = The student voice and possible employability identities.

The second contribution of this thesis is the provision of empirical support that employability identities rooted in the student voice are an important component of an SRL approach to understanding student engagement with employability capitals. Qualitative methodology provides insights into identity offering an important piece

of the SRL jigsaw (see Patrick & Middleton, 2002). The literature review set up the landscape of employability, including that students are in a time of flux because of their developmental maturity and the transition into university, but also within the context of orientations towards protean career pathways and changing notions of higher education. Research often focuses on minority groups who sit outside of the standard university experience with an emphasis on perceptions of alienation, such as Christian students (Allen-Collinson & Brown, 2012) and working-class students (Reay et al., 2010). The scarcity of the studies examining standard-entry undergraduate employability identities position the findings of this thesis as an important contribution of the employability jigsaw, showing that the findings of minority students are also relevant to more standard-entry students.

This thesis argued that SRL responds to the call for a 'genuine' self-directed graduate attributes approach (Su, 2014). Here, genuine refers to notions of employability identities which are 'bottom-up' and responsive the identity needs of students, rather than solely 'top-down' and driven by institutional needs (for example, graduate attributes driven by HE branding). Considerations of student voice are especially relevant within the context of 'unpicking' the process approach to employability laid out by Holmes (2013). While the graduate attributes approach to employability is commonly recognised, few of the models explicitly bring this aspect to the fore, and there are fewer still which combine cognitive and identity elements. The merging of these elements is important, because in cognitive models of learning, people are only predicted to act when information from the environment is relevant to a salient identity (Boekaerts et al., 2005; Simon, 2008). Therefore, while a student may have the underlying capacity to learn towards their future employment goals, they would only do this if an identity conducive to that action is in place. By doing so, the thesis

provides a means to shift away from employability as decontextualised or 'hollowed out' (McQuaid & Lindsay, 2005, p.205) and towards fruitful lines of enquiry in pursuit of a new employability scholarship discourse.

8.4.3 Key contribution 3 = Fugate et al.'s (2004) Psycho-Social Model of Employability. The third contribution of this thesis is its response to the call for theoretically informed studies and models (Brown & Hesketh, 2004). The literature review outlined Fugate et al.'s (2004) Psycho-Social Model of Employability as a generative contribution to the field. The existing model encompasses both Bourdieu's theory of capitals in its dimension of 'social and human capital', and the graduate attributes approach through the dimension of career identity. However, the model's dimension of personal adaptability is under-developed in the HE context and does not fully incorporate the psychological processes that underpin learning. To address this issue, the thesis proposed that SRL might contribute towards Fugate et al.'s (2004) extended list of potential attributes, thus combining learning and employability literature, and offering a theoretically informed measure for the psychological dimensions previously conceptualised as 'personal adaptability'. By taking this approach, the 'internal' cognitive processes of SRL were conceptualised as interacting with the 'external' world through the formation of an employability identity and thus offer an account of employability as a psychosocial process. By doing so, the thesis brings together and formalises ideas about valued employability capitals and graduate attributes (identity), together with a theory of the cognitive process of learning to inform models of employability in ways that can be inclusive and affirmative for the individual.

8.4.4 Key contribution 4 = Mixed methods. The final contribution of this thesis is the use of multiple methods to draw together a fragmented literature and as a means to understand the complexity of employability engagement. Research using mixed-methods to investigate SRL is relatively sparse and acknowledged as an emerging technique (Patrick & Middleton, 2002). The thesis focused on three aspects that are afforded by the use of psychometric measurement and qualitative analysis in self-regulated learning research: (a) providing statistical interrogation of the relationships between cognitive constructs and employability engagement; (b) analysing rich, contextualized narratives about how engagement with employability capitals was adopted, resisted and negotiated in the context of powerful and pervasive social discourses of what constitutes as 'good' employability, and (c) enabling methodological triangulation to develop a thesis sensitive to the critical literature, which is ethical, but also retains a practical edge which is respectful of stakeholder motivations at each stage of employability's conceptualisation. As such, the thesis argues for a pluralist methodological stance. To address the research questions posed with rigour and in ways that would allow an original and significant contribution to the field required a design that would produce information from multiple perspectives, and then integrate these findings.

Mixed methodologies are rooted in the premise that interrogating an issue or phenomenon from different vantage points results in a more comprehensive impression of the whole (Tashakkori & Teddlie, 2010). But such a creative approach is not simple or easily achieved. Bryman (2006) synthesises the dilemmas of mixed methods into a series of questions that include thinking about which stage of the research process this thinking becomes active and also the order, priority, and function of research

phases. In this work, Bryman (2006) builds on a comprehensive scheme from Greene, Caracelli, and Graham (1989) to synthesise justifications for a mixed method approach. Relevant to this thesis, in particular, are the justifications of triangulation (through the corroboration of findings across data), completeness (where one technique seeks to develop further on another), and expansion (the extension of one enquiry from the findings of another). In addition, Bryman (2006, p.10) states that mixed methods contribute to knowledge on process, because quantitative research provides an 'account of structures' of social life while qualitative research provides a 'sense of process'. Issues of process and structures map onto how the thesis has reviewed the employability literature and the research questions that it sought to address. And it was only through the use of a range of methodologies that it was possible to fully appreciate the complex and contradictory demands on learning and inform the challenges of encouraging undergraduate employability engagement.

8.5.0 Limitations

Consistent with the aims and objectives of the research, this thesis employed a mixed-methods design that provided novel insights into the complexity and challenges of employability. There are however several limitations to this thesis. Below issues relating to the mixed-methods design are described as a whole (limitations pertinent to each of the studies have been addressed in the respective chapters).

This thesis responded to a call for the interrogation of the employability experience for standard-entry students. However, it is acknowledged that the undergraduate student body is diverse and interactions with employability may differ considerably. Minority groups bring their own skill sets, but also may be disadvantaged by their employability profile. For example, this thesis did not consider mature student groups, students

who parent, or those with explicitly limited economic means. Enrolment on an HE programme is also taken to mean that the student is on a typical cognitive trajectory, but this also means that the employability needs of individuals who display atypical patterns of executive function were not accommodated for. For example, students with a diagnosis of autistic spectrum disorder who show a different (although not necessarily deficient) SRL profile (Grainger, Williams, & Lind, 2014). It is considered that while these groups may benefit from the findings of the thesis, more investigation is needed to understand their interactions with employability engagement.

Furthermore, this thesis did not argue that the ways in which the interviewed students spoke about employability are the only ways in which they value their university learner journey, but rather that the findings are reflective of their talk when asked to discuss their academic endeavours in an employability context. Several of the key findings could be understood as critical of HE and the employability training provided as a part of that process. But a critical realist stance allows that there may be other important 'realities' left undiscovered by the thesis suggesting further research is needed that includes the student perspective.

A further limitation is acknowledged through the underlying premise that students should engage with employability. A pragmatic approach to the problem of encouraging students to engage with employability was taken, but the critical nature of the phenomenon could warrant a different approach. Holmes is credited for appealing for a process approach to employability in recognition of the needs of undergraduate students, but this stance in itself is politicised and thus open to interrogation. For example, Holmes' work seeks to provide a more ethical framework for supporting students towards employability, but does not challenge the overall premise that HEIs should be involved in facilitating students' engagement with employability. Similarly,

this thesis, while locating employability in it's wider socio-historic and economic context did not reject the notion that students' employability needed to be better supported in HE institutions.

Ahmed's (2012) work on diversity critiques institutions when practice is driven by symbolic commitments to diversity, for example, through the prioritising of graduate employment outcomes, while neglecting to resource the performance of being an inclusive institution. The suggestion is that researchers should be more critical of participating in work that helps institutions to do employability, including work that develops frameworks that can react flexibly to social context and which buffer against harm to the person(s). This would include the current thesis and its claims that SRL could help institutions to 'do' employability in ways that benefit, rather than disenfranchise, undergraduate students. Since employability is a significant part of HEI remit, the standpoint of this thesis is that it is important to develop more inclusive, nuanced, student-voice led and evidence-based employability interventions. But, this standpoint should not detract from also supporting explorations of radical ways to think about employability engagement, such as whether the demands of graduate employment should play any central role in an HE education.

A final limitation to the thesis is both an opportunity and a burden. The use of mixed methods by this thesis, including the interactions of the study findings, has been outlined as a fruitful contribution to the field. But methodological triangulation can result in tension between findings from the different methods (see Bryman, 2006). Indeed, the use of different methodologies may have raised as many questions as it seemed to answer. This point is visible in the data about work experience. In Study 1, most students were engaged in some form of work experience, but the findings did not support the prediction that SRL would positively impact on work experience

engagement. The qualitative analysis of Study 1 and 2 showed not only that the students valued their work experience, but that they were indeed strategizing their learning towards work experience in ways indicative of SRL. But the findings also showed a reversal of the value hierarchy adopted by Study 1, whereby in Study 2 and 3 the students valued non-graduate experience more than graduate experience (albeit in the context of the potential for deprivation of opportunity). Such findings indicate that the quantitative approach taken to measuring work experience was insufficient. But how to solve such a problem in measuring work experience is not easily addressed. The fine-grained differences in the value of work experience explained by the students indicated pathways forward, through value for experiential learning, for example, but do not necessarily accommodate the value systems of broader employability stakeholders, such as employers, upon which the literature review drew. However, it is recognised that it is only by adopting the mixed methods approach that these interactions become visible, and as such the complexity in of itself holds value.

8.6.0 Future research

The findings of this thesis offer several avenues for further research, outlined below.

Study 1 adopted a psychometric approach. Through the application of pre-validated and developed measures, employability was investigated in novel ways illuminating several avenues for future research. The utility of SRL for thinking about employability capitals was confirmed using pre-validated measures of metacognition, self-efficacy, and epistemological belief. However, the statistical analysis indicated that an overall reduction of items might be suitable, creating the possibility of a more easily implemented measure. Further studies could explore the efficacy of a shortened measure informed by the qualitative findings. A second data set would enable multi-

group comparison, for example, across non-graduate and graduate groupings.

The support for SRL pointed to further pathways to investigate employability process. As the interviews and focus groups drew to a close, many participants spontaneously commented about the usefulness of the sessions. Such an observation suggests the potential to investigate SRL processes in action more explicitly. Future research could apply analytic techniques that specifically consider active cognitive processes within employability narratives, such as using the Self-Regulated Learning Interview (SRLIS) (Zimmerman & Pons, 1986) which observes SRL 'in motion' through experimental or test conditions. Building on this approach, the thesis findings also suggest directions to develop further stimuli. The card-sort provided a useful framework for the thesis, but could be reworked drawing on the SRLIS and also incorporating the specific themes of employability learning that were gained from the interviews and focus groups.

Despite an emerging interest in critical skills and employability, little support was demonstrated for the inclusion of the EBI (epistemological belief). Epistemic beliefs are shown to be domain-general (Schraw et al., 2006). Thus, positive results would have suggested that the more sophisticated a student's beliefs about knowledge in the academic context, the more they would engage with employability capitals because they valued this learning action. However, on analysis of the data, correlations were weak, several values operated in a negative direction to predicted (albeit not significant), and the calculated reliability values were barely adequate. The qualitative studies yielded considerable difference in how students made sense of approaches to knowledge generation. Such findings open up generative opportunities to explore how the valued skill sets of academic scholarship, such as critical thinking and evidence-based practice, can translate to the workplace, or preparation for the workplace. For example, in Study

1 students with low engagement with work experience were also shown significantly more likely to think that knowledge is 'simple to gain'. Therefore, future research could explore notions of how employability identities interact with beliefs that learning is simple to gain – in juxtaposition to the sustained engagement demanded by SRL. Such a prospect offers opportunities to build a more comprehensive understanding of employability engagement, but also contributes to an acknowledged lack of means to reliably measure epistemological belief (see DeBacker, Crowson, Beesley, Thoma, & Hestevold, 2008).

As a final direction for future research, Study 1 evidenced some support for groups who may be vulnerable or 'at risk' in the employability context. For example, women were shown more likely to report lower self-efficacy than men despite their higher overall skill status. This finding reflected other literature demonstrating that women are less likely to present themselves as being capable, and to report lower self-efficacy (Etzkowitz et al., 2000; Hackett & Betz, 1981; Riley & Evans, 2017), and findings relating to gendered occupational identities (Mackenzie & Knipe, 2006), where women are less likely to present themselves as competent at tasks irrespective of their underlying ability. As such, this result provides support for further research into women's self-efficacy and the development of interventions that directly target the identity development needs of female students when seeking to raise their self-efficacy and develop their graduate employability.

8.7.0 Concluding statement

This thesis brings the well-developed literature of SRL into the field of employability and offers a significant and novel contribution to understanding students' engagement with employability practices and graduate identities in ways that inform the

development of inclusive and affirmative graduate employability interventions. Supporting students to engage with employability is complex and fraught with challenges. However, in striving to support positive futures for undergraduate students, employability frameworks are needed which draw HEs away from the lure of the possession of skills and towards the process of 'becoming' an active citizen. Harvey (2000, p.8) suggested that, to support students towards graduate employment, HE needs to transform to address the needs of this 'new reality'.

By bringing together SRL theory, Holmes' process, and Bourdieu's notions of capital, this thesis showed SRL as a fruitful way to facilitate understanding of the psychological processes that underpin differences in students' engagement with graduate employability. Path analysis supported the predicted relationships for SRL on transversal skills, career-development support, and degree classification. But qualitative findings also indicated the presence of subtle but powerful barriers that students negotiate in their engagement with employability. These insights into available employability identities and their mapping onto metacognition, self-efficacy and epistemological belief add insight into contemporary debates over what it is to be educated in preparation for the graduate labour market. SRL explains the continuum of engagement observed in the applied setting and also accounts for some of the variability in the literature, disrupting assumptions of a linear relationship between participation in HE, engagement with employability, and securing graduate level employment. Given that SRL was shown to be mediated by dilemmas of capital and identity, the most vulnerable students of all will have under-developed self-regulatory status in combination with an identity that rejects or resists engagement. Only by recognising the multifaceted nature and dynamic complexity of employability can universities best support students in preparing for graduate employment.

8.8.0 Reflexivity

This thesis started with a successful bid to the Higher Education Academy, which offered a psychological approach to a pragmatic problem of how HE institutions enhance the likelihood of students gaining graduate level employment. This seemed like an important issue to study, but my exploratory readings and experiences indicated the complexity of the topic. In my earliest presentations, an academic mouthed 'bias' to a colleague, another rolled his eyes and asked if employability was just a 'buzz word'. I saw employability as important, and it was upsetting to see academics so casual and resistant about the issue given that students often have their hopes set on it. But at the same time I recognised that employability is a problematic term and that academics had a genuine concern about being asked to coach students towards goals for which lecturers may be ill-equipped for or critical of.

I knew how many students across the UK were enrolling in HE every year, many of whom had hopes that their studies would lead to fulfilling employment, and that for me, a problematic number would not have those hopes fulfilled. On a personal level I knew what it was like to seek employment in a competitive landscape, and understood the value of improving employability. To this end, and as a psychology graduate located in a psychology department, I focused on developing a proposal that would identify psychological processes that might facilitate or limit students' ability to engage with employability practices, and hence reduce their chances of graduate employment. This focused me in the direction of approaches to learning. This aspect of life interests me because I know people who struggle to regulate their learning in the expected way. This experience base led me to focus on the issue of learning, particularly as my reading suggested that it represents an important missing aspect in employability

literature, leading to me to identify SRL as a possible 'missing piece of the jigsaw' (Yorke, 2004, p.26). But my early career experiences had also indicated to me that psychological processes and skills are not enough. In the 1990s I walked into my first job in the purchasing department of a factory. I worked very hard, but in some ways felt I achieved little. Industry in the Midlands was going through tough times and during the next 15 years I was made redundant and 'jumped ship' from other jobs more than once. I can also relate to the currently shifting sands of academia and graduate employment because I have directly benefited from the opportunities of a degree later in life.

One of the outcomes of these experiences was that when I came across Bourdieu's work on capitals in the employability literature, it resonated with my own life. But it was not clear to me how, or even if, I should start to bring sociology into a psychological study. But Bourdieu continued to act in the periphery of my thinking, in part, because much of the employability literature references his work. During my PhD, I undertook a separate small project for the Home Office on working-class women's aspirations towards civil service employment, which involved facilitating focus groups with working-class identified young women at university. Their talk of their experiences oriented around Bourdieu's ideas of social, cultural and economic capital, and my analysis of this work then fed into my PhD, producing a need for me to engage more deeply in Bourdieu's work. To that end, I read Bourdieu's work in the original (having previously only read of it in the employability literature), and with this knowledge I started to gain confidence in identifying a direction for how to develop my thesis into a more psycho-social study, which in turn I felt, would allow me to more comprehensively address the key concerns of the thesis, namely understanding students' engagement with employability practices.

I started to conceptualise what I had previously called 'endorsed employability

practices' as not just practices, but practices that were enabled by and produced capitals, and from there I could see that conceptualising these as employability capitals allowed me to bring together the wide range of reading on employability I had done under Holmes' typology of possession, position and process. Through these processes, the ambitious aims of the project – to offer an empirically supported direction for HE employability interventions – seemed possible. I was able to map a diverse range of literature, to bring together psychology with sociology, to develop and expand an influential model of employability, and to develop a thesis that was not just practically oriented but was critical and conceptual.

I was keen to address the practical aims of this thesis, because I saw them as important. But, I also wanted to produce a rigorous, conceptual piece of work, worthy of a PhD. Bourdieu offered a conceptual framework, but I also developed my thinking through the critical research in social psychology group with Dr Sarah Riley. Through CRISPA, I was able to think more deeply about knowledge as historically and culturally produced, directing my attention to understanding employability as a social construct. One outcome of which was the decision to add a brief genealogy of the concept at the beginning of the thesis, so that I could make transparent some of the relationships between institutional power and knowledge, in order to show the different ways that employability has been conceptualised, and to what effect. These kinds of considerations directed me towards the critical realist literature, which offered an ability to understand employability as both real (since people treat it as real) and a social construct (since its reality is socially produced). More recently, these ideas led me to literature on 'critical pragmatism' the idea that problem-driven pragmatism can be enriched by critical theory (Kadlec, 2006), this resonated with me – capturing what I intended to do with this project. I see the success of these actions in both identifying a

direction for HE interventions in SRL, that should also enhance students' academic engagement. In that sense, I have reconciled diverse and competing perspectives and identified a direction for employability interventions that might please both those who are supportive and critical of the concept of employability. I claim this as a pragmatic and useful solution . My analysis also pointed to the complexity of students' engagement, the way that employability practices within HE can undermine as well as develop students' sense of self, and how the concept of employability creates complex dilemmas and paradoxes for students to negotiate. These findings are less easy for HE institutions to integrate, but they are equally important, and these two contributions show the value of doing a mixed methods approach.

The mixed methods approach I took was ambitious. At times I have felt that it was overly ambitious, particularly as each phase I sought to address with maximum rigour (e.g. modelling, learning epistemology at deep level, using different qualitative and quantitative methods and analysis, and learning about these all at the highest level I could achieve in the timespan). I am indebted to my examiners for suggesting the work on Bryman (2006), whose extensive discussion on the value and pitfalls of mixed-methods I found both of interest and also a comfort. Mixed-methods was the right approach for my argument, but at times synthesising the literature, methodologies and findings overwhelmed my abilities and stage of academic development. A particular challenge was writing for both quantitative and qualitative audiences from the fields of psychology and employability. Taking on the identity of a critical pragmatist, I have been able to offer a practical solution to an important problem, and critically contextualise the problem, thus offering direction for interventions. In the process, I also raise some difficult questions for HE institutions. In particular, how do universities support their students towards employment in the context of an unequal society

that often, as analysts of neoliberalism argue, locates the outcomes of inequality in individual failure? The conclusion of this thesis is that one direction is to support students' development of self-regulated learning.

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Appendix A

Literature Review Supplementary Information

Table A.1: *Examples of Skills Taxonomies used in Higher Eduction*

Publication	Skill Category	
Rees et al. (2006)	**Student Employability Profiles HEA**	
Generic Competencies	Cognitive Skills	Personal Capabilities
Technical Ability	Organizational Awareness	Professional Elements
Robinson (2000)	**The Workplace: A Fact Sheet**	
Basic Academic Skills	Higher Thinking Skills	Personal Qualities
CBI (2011)	**Building for Growth**	
Self-Management	Team Working	Business Awareness
Communication	Numeracy	Problem Solving
Information Technology	Literacy	
Lanning et al. (2008)	**Employability Skills Examined**	
Communication	Literacy	Team Working
Information Technology	Timekeeping	Numeracy
Business Awareness	Customer Care	Personal Presentation
Enterprising	Job Specific Skills	Enthusiasm
Advanced Vocational	Commitment	
Ennis (2008)	**Competency Models**	
Professionalism	Integrity	Reliability
Interpersonal Skills	Willingness to Learn	Reading
Writing	Numeracy	Technology
Communication	Critical Thinking	Planning
Working with Technology	Checking & Recording	Problem-Solving
Decision Making		

Table A.2: *Models of Student Employability*

Author	Year	Model	Constructs	Comments
Hillage and Pollard	1998	4 Factor Model	Employability Assets: Knowledge, Skills, attitudes	Context: Pedagogy
			Deployment: Job search skills	Written for policy
			Presentation: Job getting skills	No account of psychological expression
			Personal circumstances and external factors	External Barriers: Labour Market
Forrier and Sel	2003	The Employability Process Model	Labour Market Position	Context: Occupational Research
			Movement Capital	Perspective of labour market protection
			Context	Refers to `behavioural capabilities' (Optimism, Self-Efficacy)
			Ease of movement	
			Shock Events	
			Willingness to Move	
			Transition	
Knight and Yorke	2004	USEM	Understanding	Context: Pedagogy
			Skills	Written for practice
			Efficacy beliefs	Link with self-efficacy / metacognition
			Metacognition	
Dacre Pool and Sewell	2007	CareerEDGE	Career: Development and Learning	Context: Pedagogy
			Experience: (Work and Life)	Experiential learning / reflection focus
			Degree: Subject Knowledge, Understanding and Skills	Heavily influenced by emotional intelligence
			Generic Skills	Reflection
			Emotional Intelligence	
			Within Reflection and Evaluation	
			Self-esteem, Self-efficacy and Self-Confidence	
Van Dam	2004	Conceptual Model of Employability Orientation	Openness	Context: Occupational Research
			Initiative	Validated using MBTI & Generic 5-Factor
			Career Anchors (Goals)	Antecedent Variables: Coming Before
			Organisational Support	Assumes organisational support in place
			Career Development Support	Problematic results: personality constructs
Van der Heidje and Bakker	2011	Competence Based	Anticipation and optimization	Context: Occupational Research
			Personal Flexibility	Developed and validated within professional settings
			Corporate Sense	Links with theory of pro-active personality
			Balance	
Bridgstock	2009	Conceptual Model of Graduate Attributes	Self-management skills	Context: Pedagogy
			Career building skills	Australian context
			Discipline specific skills	Theoretical model only
			Generic skills	
Thujssen, Van der Heijden and Rocco	2006	Employability Link Model	Predictors of current employability	Context: Occupational Research
			Current employability of human resources	Theoretical paper: Questions for dialogue
			Personal: learning skills and contextual support	Psychological contract focus
			Transitions: Personal skills and external support	Flow model
Fugate, Kinicki and Ashforth	2004	Psycho-Social Model of Employability	Personal Adaptability	Context: Occupational Research
			Career Identity	Psych-social
			Social Capital	Personal adaptability leading to propensity to learn
			Human Capital	

Table A.3: *Definitions of Student Employability*

Author	Definition
Hillage and Pollard (1998) p.1	`Employability is the capacity to gain employment, to maintain that employment and to find new employment if required'
Hillage and Pollard (1998) p.2	`Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context e.g. personal circumstances and labour market environment within which they seek work'
Harvey (1998) p.4	`Employability of a graduate is the propensity of the graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation'
Lefresne (1999) p.465	'The probability, for a given group, at a given time, of finding a job or emerging from unemployment'
Fugate, Kinicki and Ashforth (2004) p.15	'Employability is a psycho-social construct that embodies individual characteristics that foster adaptive cognition, behaviour, and affect, and enhance the individual-work interface'
Yorke (2006) p.8	`A set of achievements – skills, understandings, and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'
Dacre Pool and Sewell (2007) p.280	`Employability is having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful'
Berntson, Näswall and Sverke (2008)	`Employability refers to an individual's perception of his or her possibilities of getting new, equal, or better employment'
Rothwell and Arnold (2007) p.5	`The ability to keep the job one has or to get the job one wants'

Appendix B

Ethical Supplementary Information

B.1.0 Ethical Approval

PRIFYSGOL ABERYSTWYTH UNIVERSITY

COMMITTEE REFERENCE

Oddi Wrth/From:	Joint Research Ethics Sub Panel Arts and Humanities/Social Science and Science
I/To:	Saffron Passam
Dyddiad/Date:	17/12/12
Testun/Subject:	Submission of Research Proposal for Approval

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6. Submission of Research Proposals for Approval

6.2 Received: Research proposal from Saffron Passam, Department of Psychology

Noted:

1. That Dr Kate Bullen declared a conflict of interest as she is the researcher's supervisor.
2. That this should be commended for being a very thorough, well structured, and clearly laid out application.
3. The panel felt that that with the researcher's permission, that this could be used as an exemplar of good practice for others.

Resolved: That the project be given an outright favourable ethical opinion

Department of Psychology Research Committee
ETHICS APPLICATION RESPONSE

Name of applicant	Saffron Passam
Applicant's email	sfp
Topic of study	employability
Type of Researcher (please tick)	☐ Undergraduate student ☒ Postgraduate student ☐ Member of staff own research ☐ Member of staff for teaching based research

Outcome of your resubmission

☒ The submission is passed subject to *minor* amendments. Research cannot commence until a revised submission has been passed. Please revise your submission based on the comments made by the committee outlined below and resubmit your application by email, with your changes highlighted in red directly to Dr Sarah Riley, scr2@aber.ac.uk

Please address the following in your resubmission:

- Section 4 states that all participants are on a degree course but it is not clear how you will validate this given that in section 5 participants will be selected from the general public. Clarification on how the measures and recruitment can confirm that participants are HE students is needed.
- Clarification required on prize draw: does it include students and employers or just students; do those who withdraw get included in the prize draw, and for this information to be included in the participant information sheet.
- Debrief sheets the same for employers and students but they have different needs and so should be tailored accordingly. Also, the appendices were oddly numbered and it was hard for the committee to identify which documentation you were referring to.
- Re the questionnaires being used – please reflect on use of the term 'parent' (rather than parent/guardian); on the hierarchy of the parental occupations (perhaps randomize the list so that participants don't feel the question puts their parents in a such an obvious hierarchy); and consider terminology for those with one parent/guardian so that their experiences aren't constructed as non-normative.

Also for your consideration the committee had the following comments on design issues that are not related to ethics:

- Consideration is needed for issues of parity in relation to differences between paper and online questionnaires e.g. online questionnaires to be randomized and presumably not for paper copies.

Sarah Riley, Chair, Psychology Department Ethics Committee

Date

B.2.0 Study 1

Study Information – Please read carefully.

You are invited to take part in a research study which will involve answering questions about yourself and your experiences of employment. To take part you must be aged 18 or over, and a current undergraduate student at a university in the United Kingdom.

What is the purpose of the study?

This research is funded by the Higher Education Academy, as part of a PhD research project. I am interested in how university students prepare themselves for employment. The study might not benefit you directly, but eventually the results might influence how topics are taught at universities across the UK. As a thank you, if you are eligible to participate, you will be entered into a prize draw for a £100 Amazon voucher. Please ensure you include your university email address in the relevant section towards the end.

What would be involved for you?

You have been asked to take part because you are an undergraduate student in the UK. The study will require you to answer a series of questions about yourself. This is expected to take about ½ hour to complete, but you can save and return at a later time. You do not need to answer any questions you feel uncomfortable about.

Are there any risks to participating?

This study is designed in accordance with The British Psychological Society ethical guidelines. If you do experience concern as a result of this study please ask for assistance using the contact details provided, or you will be provided with useful contacts at the end. I hope it is a fun and enjoyable experience.

Do I have to take part?

No, the study is entirely voluntary and anonymous. You are free to withdraw your participation, without reason and prejudice, up until December 2014. If you do decide to withdraw then all of your responses will be deleted. You will retain your chance to win £100 Amazon voucher, providing you include a university email address.

Will my responses be kept anonymous?

Yes, you can only be identified by a number. Your responses will be stored safely and only presented as part of a group of results. The information will be written up as a research project, published, and presented at conferences. BPS guidelines advise that only in very exceptional circumstances confidentiality will be broken and professional advice sought.

What if I have any concerns?

You can ask questions at any time, as main researcher you can contact me, Saffron Passam on sfp9@aber.ac.uk. If you have any ethical concerns or would like to talk about the study you can also contact my supervisor Professor Kate Bullen at Aberystwyth University.

Important – please complete each question below

Are you currently an undergraduate student studying at a UK University?

☐ Yes

☐ No Please turn to the last page

Are you aged over 18?

☐ Yes

☐ No Please turn to the last page

Please read the following statements

(You must agree to all four statements to continue with the study)

1) I confirm that I have read and understood the information sheet for this study, and have had any questions answered satisfactorily.

2) I understand that my participation is voluntary and that I am free to withdraw at any time.

3) I understand the steps that will be taken to keep my information anonymous.

4) I agree to take part in the above study.

☐ Yes, I agree (write your initials in this box)

Please provide an anonymous identifier for yourself, you will need this if you decide to withdraw from the study in the future.

☐ An example could be PH86 - this could be initials plus birth year.

The questionnaire consists of 15 pages, with some pages much shorter than others.

Thanks for your help, please continue.

Thank you for taking part in this interview. Your help is very much appreciated.

The purpose of this research is to understand the psychological aspects of developing skills and attributes which make us employable. In particular, this study concerns undergraduate students. Employability is a "hot" topic within Higher Education; there is a lot of discussion about what it is, whether we can measure it, how it develops and who is responsible for encouraging it.

In particular the responses from your questionnaire will help to demonstrate the role which metacognition has in employability. This is best explained as "thinking about thinking". Young children have an awareness of their own cognitive processes and the ability to manage cognition is shown to develop well into adulthood. Specifically my research will consider how the thoughts we have about employment drive our overall employability development. I hope to develop psychologically informed interventions from these findings.

I hope that taking part has been an enjoyable experience. Should you have any concerns please do not hesitate to contact me, Saffron Passam sfp9@aber.ac.uk, or my supervisor Professor Kate Bullen, kab@aber.ac.uk. If taking part has raised any concerns about employability, or inspired you to seek more information you might want to contact your own universities careers department. Additionally, the following organisations produce informative literature.

National Careers Service – www.nationalcareersservice.direct.gov.uk

Prospects – www.prospects.ac.uk

The Higher Education Academy - www.heacademy.ac.uk

B.3.0 Study 2 and 3

Focus – 1UG

PRIFYSGOL ABERYSTWYTH UNIVERSITY

Study Information

As a PhD Psychology student at the University of Aberystwyth, I am inviting you to participate in a research study which will involve talking about your own experiences of employment.

What is the purpose of the study?

This research is funded by the Higher Education Academy. I am interested in how to help university students prepare themselves for employment. The study might not benefit you directly, but eventually, the results might influence how topics are taught at universities across the United Kingdom.

What would be involved for you?

You have been invited to take part because you are a first-year student (* or third-year). The study involves participating in a focus group. This is a type of group discussion where people will sit together in a room and talk about a topic. The discussion will be recorded using audio equipment.

You do not need to know anything about the topic, and I am interested in lots of different views. There will be an activity with statements to discuss, you can talk about how the statement relates to your own experience. The session will take approximately 2 hours to complete. You do not need to answer any questions you feel uncomfortable about, and you will be asked to keep everyone else's contribution private.

Are there any risks to participating?

This study is conducted in accordance with The British Psychological Society and Departmental Ethics Guidelines. I hope it is a fun and enjoyable experience. To participate, you must be aged 18 or over.

Do I have to take part?

No, the study is entirely voluntary and will not affect your studies in any way. You are free to withdraw your participation, without reason and prejudice, up until May 2013. If you decide to withdraw, you will retain your credits on Sona (if applicable). On request, I can show you the transcript and you can ask that details are deleted. However, destroying all data will be difficult because of group participation and you should consider this.

Will my responses be kept confidential?

You will only be identified by a number. I will never discuss by name who took part in the focus group, but you should consider that another participant might. Any identifying details which you accidentally give, like names, places, employment history will be deleted. After the discussion I will transcribe the recording: This means typing up exactly what was said, but I will still ensure it is anonymous. I will then look for themes across the discussion. Your responses could also be written up as verbatim extracts. I will contact you within two months and offer the opportunity to check that I have done this accurately. You can also request that sections of the discussion are deleted. The information will be written up as a research project, published and also presented at conferences. BPS guidelines advise that in very exceptional circumstances, confidentiality may be broken and professional advice sought.

What if I have any concerns?

You can ask questions at any time. As main researcher you can contact me, Saffron Passam on sfp9@aber.ac.uk . If you have any ethical concerns or would like to talk about the study you can contact my supervisor Dr Kate Bullen on kab@aber.ac.uk.

Thank you for taking the time to read this information
I hope that you enjoy participating in my research

Participant number
_____

Consent Form

Title of project: Employment – Focus Group Discussion

Name of researcher: Saffron Passam (sfp9@aber.ac.uk)

Participant Identification Number for this study: _____

Please initial each of the following boxes to confirm your agreement.

1) I confirm that I have read and understood the information sheet for this study. I have been given the opportunity to consider the information and have had any questions answered satisfactorily. ☐

2) I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my education being affected. ☐

3) I understand the steps that will be taken to keep my information anonymous and the limitations to confidentiality have been explained. ☐

4) I agree to my conversation being recorded by audio-equipment and the use of anonymised verbatim quotes. ☐

5) I agree to take part in the above study. ☐

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of researcher	Date	Signature

Employability and Learning from Experience

Thank you for taking part in this focus group session, your help is very much appreciated.

The purpose of this research is to understand the psychological aspects of developing skills and attributes which make us employable. In particular, this study concerns undergraduate students. Employability is a "hot" topic within Higher Education, and there is much discussion about what it is, whether we can measure it, how it develops and who is responsible for encouraging it. We chose to explore this using focus groups as it gives us a range of opinions and experiences.

Remember that anything you said in the discussion will be anonymised: this means your name or any other personal details will not be shown. Everyone taking part is kindly asked not to discuss the session, and to keep the details of who took part private. If you decide you would like to withdraw, please contact me by emailing sfp9@aber.ac.uk, with your participant number provided below. Please be aware that because you took part in a group session, I would only be able to withdraw segments of the transcript.

I hope that taking part has been an enjoyable experience. Should you have any concerns, please do not hesitate to contact me, Saffron Passam sfp9@aber.ac.uk or my supervisor Dr Kate Bullen, kad@aber.ac.uk. If taking part has raised any concerns about your own employability, or inspired you to seek more information the University careers service offers a comprehensive range of support activities and can be contacted on:

Careers Service
Aberystwyth University
Tel: (01970) 622378
E-mail: careers@aber.ac.uk

Appendix C

Study 1: Appendices

C.1.0 Pilot Study

Table C.1: *Pilot: Demographic Characteristics*

Features		N	%
Gender	Female	22	78.6
	Male	6	21.4
Nationality	British	25	89.3
	International	3	10.7
Age	18-21	22	78.6
	Mature	6	21.4
Year of study	1st	6	20
	2nd	9	30
	3rd	13	43.3
Discipline	Psychology	13	46.4
	Geography	11	39.3
	Other	4	14.3
Socioeconomic Status	Higher	18	63.4
	Intermediate	1	3.6
	Small Employers	3	10.7
	Lower Supervisory	4	14.3
	Missing	4	14.3

Table C.2: *Pilot: Descriptive Statistics*

Item	Option	N	%
Work experience	Non-graduate	27	96.4
	Graduate	16	57.1
Careers Guidance			
Attended a careers talk	Yes	9	32
	Plan to within 6 months	9	32.1
	No	10	35.7
Access to CV writing support	Yes	10	35.7
	Plan to within 6 months	5	17.9
	No	13	46.4
Attended a talk from employers	Yes	13	46.4
	Plan to within 6 months	9	32.1
	No	13	46.4
Signed up to receive information	Yes	9	32.1
	Plan to within 6 months	3	10.7
	No	16	57.1
Attended a 1:1 Session	Yes	0	0
	Plan to within 6 months	9	32.1
	No	19	67.9

Table C.3: *Pilot Study: Correlations and Reliability*

	Instrument	1	2	3	4	5
1	Metacognition	1.00	-.22	.36*	-.18	-.10
2	Self-efficacy	-.22	1.00	.46**	.15	.14
3	Skills	.36*	.46**	1.00	.03	.11
4	Careers	-.18	.15	.03	1.00	.32*
5	Experience	-.10	.14	0.11	.32*	1.00

Note. *p <.05; **p <.01.

(a) *Pilot: Correlations*

Construct	N	α	Mean	SD
MAI	44	0.92	131.08	21.82
NGSE	7	0.73	3.97	0.46
SI	41	0.91	77.57	

Note: α = Cronbach's Alpha, N= Number of items.

(b) *Pilot: Reliability Analysis*

C.2.0 Outliers and Reliability

Outliers. Participants in Study 1 recorded their age from seven ordered categories: (1) 18-21; (2) 22-30; (3) 31-40; (4) 41-50; (5) 51-60; (6) 61-70; (7) 71+. In Study 1, participants aged 18-21 and 22-30 were treated as a single group.

Before making the decision to treat students aged 30+ as outliers, a one-way between-groups analysis of variance (ANOVA), grouped by the seven age categories showed no significant score difference at the $p<.05$ level across the instruments (see Appendix Table C.5, p.387). An independent samples t-test also compared the categories of 18-21 and mature (21+ in higher education), with no significant difference shown (also see Appendix Table C.5). This initial analysis demonstrated that the entire sample be considered as one group, though these results differed from findings in the literature review with regard to expectations of developmental maturity and employability engagement.

On further investigation, visual checking of the data suggested a more pronounced difference from aged 30 onwards. An ANOVA was performed by the age categories of 18-21, 22-30 and 30+, showing no significant difference at the $p<.05$ level (see Appendix Table C.5, p.387). However, despite not reaching statistical significance, Cohen's d effect sizes were shown to be much larger between 18-21 and 30+, than between 18-21 and 22-30. In particular, the SI score with a medium effect at .57 showed the older group as much more skilled (see Table C.4, p.C.4). Post-hoc comparisons using the Tukey HSD test indicated that the mean skill score for the 18-21 group (M= 2997.85, SD= 446.00) was significantly different from age 30+ (M= 3238.22, SD= 387.52). In light of the lack of a significant difference in combination with small effect sizes, twenty participants aged 30+ were excluded from further analysis.

Table C.4: *Cohen's d Values between Age and MAI, NGSE, EBI and SI*

Instrument	Group	Cohen's *d*
Metacognition	18-21 v 22-30	-.11
	22-30 v 30+	-.28
	18-21 v 30+	-.41
Self-efficacy	18-21 v 22-30	.04
	22-30 v 30+	.04
	18-21 v 30+	.09
Epistemological Belief	18-21 v 22-30	.09
	22-30 v 30+	.27
	18-21 v 30+	.35
Skills Inventory	18-21 v 22-30	.08
	22-30 v 30+	.52
	18-21 v 30+	.57

Note: Levene's Test of Homogeneity indicated suitability for comparison.

Table C.5: *Age: Data Preparation*

Instrument	*df*	*t*	Sig	Cohen's *d*
Metacognition (MAI)	315	-1.37	0.17	-0.15
Self-Efficacy (NGSE)	315	-0.46	0.65	-0.05
Epistemological Belief (EBI)	315	1.24	0.22	0.14
Skills (SI)	315	-1.58	.114	0.18

(a) *T-Test between age (18-21 and mature) and main variables*

Instrument	*df*	*F*	Sig
Metacognition (MAI)	5,311	1.01	0.41
Self-Efficacy (NGSE)	5,311	0.80	0.55
Epistemological Belief (EBI)	5,311	0.85	0.52
Skills (SI)	5,311	1.90	0.09

Note: Levene's Test of Homogeneity demonstrated no significant variance across the group.

(b) *ANOVA between age (7 groups) and main variables*

Instrument	*df*	*F*	Sig
Metacognition (MAI)	2,314	1.45	0.24
Self-Efficacy (NGSE)	2,314	.113	0.89
Epistemological Belief (EBI)	2,314	1.27	0.28
Skills (SI)	2,314	0.11	0.89

Note: Levene's Test of Homogeneity demonstrated no significant variance across the group.

(c) *ANOVA between age (18-21, 22-30, and 30+) and main variables*

Table C.6: *Univariate Outliers: Skills Inventory*

Variable	No. above 3.29	Score Range
Communicating to others by writing	3	17-19
Taking orders without getting offended	2	10
Working with other people in a team	1	24
Being friendly	4	36-39
Listening to others	4	37-39
Well groomed/dress code	6	15-19
Carry out instructions from others	4	28-29
Assessing risk	2	4
Working in a stressful environment	1	6
Taking the initiative	2	6
Responsible for money	4	13
Handling lots of information	2	15-16
Making decisions	4	8-10
Identifying and solving problems	1	29
Using your own judgement	5	27-30
Meeting tight deadlines	5	13-14
Finishing jobs to completion	1	33
Seeking out new opportunities to learn	3	11
Paying attention to detail	5	12-14
Being punctual	3	7-9
Working on your own	3	37-39
Using presentation software	2	24-25
Using word processing software	5	29-30
Using the internet to find information	4	44-47
Being sensitive to the needs of others	3	9
Having experience of situations requiring honesty	4	16-17
Awareness of different cultures	2	22-23
Awareness of health and safety	4	3
Awareness of global problems	2	10

Table C.7: *SI: Reliability*

Factor	Eigenvalue	Criterion Value	Decision
1	12.38	1.86	Accept
2	2.35	1.75	Accept
3	1.78	1.67	Accept
4	1.69	1.61	Accept
5	1.59	1.55	Accept
6	1.39	1.51	Reject

Table C.8: *Parallel Analysis for the Skills Inventory*

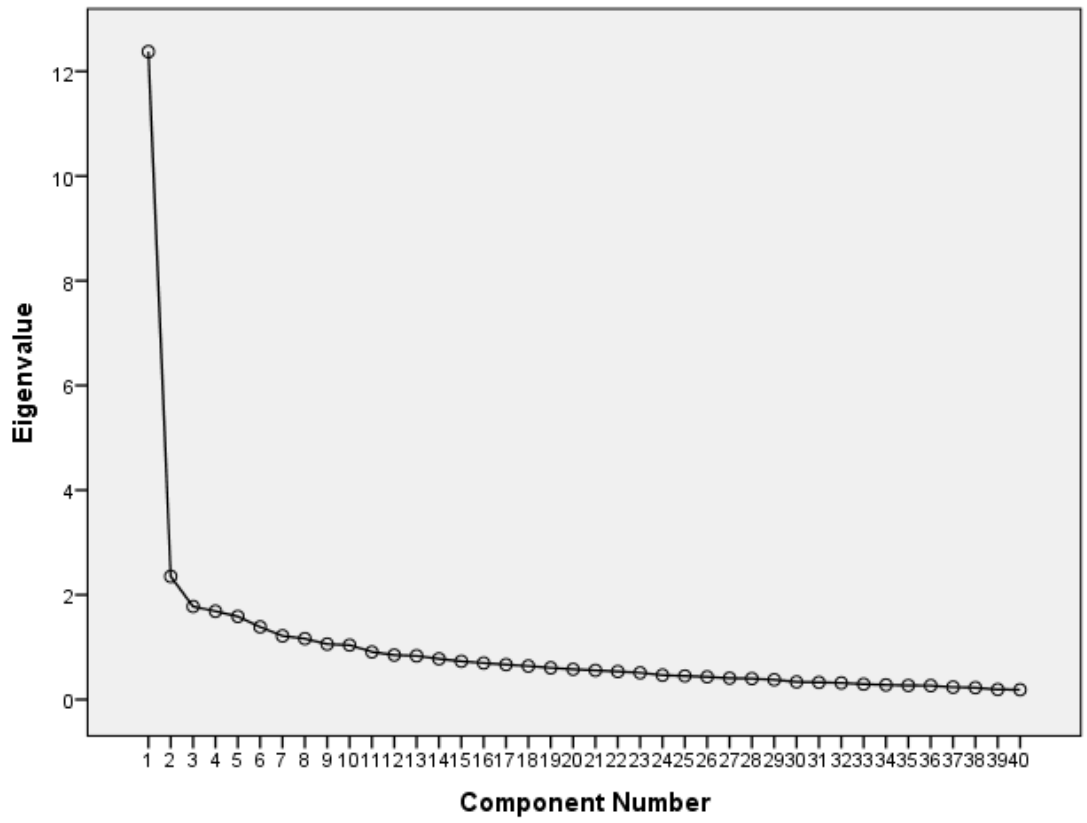


Figure C.1: *Skills Inventory (SI) Scree Plot*

Reliability Calculations.

MAI: Factor Loadings and Reliability Calculations.

Item	Statement	Loading Factor 1	Factor2	α	AVE	CR
Knowledge of Cognition						
DK10	I know what kind of information is most important to learn	.58		.79	.31	.99
DK12	I am good at organising information	.55				
DK17	I am good at remembering information	.47				
DK20	I have control over how well I learn	.52				
DK32	I am a good judge of how well I understand something	.46				
PK14	I have a specific purpose for each strategy I use	.64				
PK27	I am aware of what strategies I use when I study	.54				
PK33	I find myself using helpful learning strategies automatically	.65				
CK26	I can motivate myself to learn when I need to	.54				
CK29	I use my intellectual strengths to compensate for my weaknesses	.43				
CK35	I know when each strategy I use will be most effective	.66				
Regulation of Cognition						
PLAN6	I think about what I really need to learn before I begin a task		.56	.87	.31	.99
PLAN8	I set specific goals before I begin a task		.55			
PLAN22	I ask myself questions about the material before I begin		.57			
PLAN23	I think of several ways to solve a problem and choose the best one		.51			
STRAT30	I focus on the meaning and significance of new information		.58			
STRAT43	I ask myself if what I'm reading is related to what I already know		.47			
STRAT47	I try to break studying down into smaller steps		.48			
PLAN4	I pace myself while learning in order to have enough time		.66			
DEBUG40	I change strategies when I fail to understand		.50			
DEBUG44	I re-evaluate my assumptions when I get confused		.55			
EVAL19	I ask myself if there was an easier way to do things after I finish a task		.43			
EVAL24	I summarise what I've learned after I finish		.49			
EVAL36	I ask myself how well I accomplished my goals once I'm finished		.67			
EVAL50	I ask myself if I learned as much as I could have once I finish a task		.60			
MTR1	I ask myself periodically if I am meeting my goals		.69			
MTR11	I ask myself if I have considered all options when solving a problem		.55			
MTR21	I periodically review to help me understand important relationships		.62			
MTR28	I find myself analysing the usefulness of strategies while I study		.55			
MTR34	I find myself pausing regularly to check my comprehension		.43			
MTR49	I ask myself questions about how well I'm doing while		.57			
	I am learning something new	**Total**		.89	.50	1.00

Table C.9: *Goodness-of-Fit Indices for the MAI*

Model	χ	*df*	TLI	CFI	RMSEA	WRMR
MAI						
8 Factor Model	2047.73	1216	.84	.85	.05	1.68
1 Factor Model	2185.71	1224	.82	.83	.05	1.79
2 Factor Model*	Fit not computed due to non-identified model					
2 x 1 Factor	754.59	433	.91	.91	.05	1.14

Note:*df* = degrees of freedom, TLI = Tucker-Lewis Index, CFI = Comparative Fit Index, RMSEA = Root Mean Squared Error of Approximation, WRMR = Weighted Root Mean Square Residual

Table C.10: *NGSE: Factor Loadings and Reliability Calculations*

Item	Scale Item	Factor 1	α	AVE	CR
SE1	I will be able to achieve most of the goals I have set for myself	.72	.92	.60	1.00
SE2	When facing difficult tasks, I am certain that I will accomplish them	.83			
SE3	In general, I think that I can obtain outcomes that are important to me	.75			
SE4	I believe I can succeed at almost any endeavour to which I set my mind	.79			
SE5	I will be able to successfully overcome many challenges	.82			
SE6	I am confident that I can perform effectively on many different tasks	.80			
SE7	Compared to other people, I can do most tasks very well	.73			
SE8	Even when things are tough, I can perform quite well	.76			

WSSE: Factor Loadings and Reliability Calculations.

Item	Statement	Factor Loading				α	AVE	CR
		1	2	3	4			
Social Gathering						.90	.59	.97
SESG1	Inviting your coworkers to an office birthday party?	.80						
SESG2	Participating in a holiday gift exchange with your coworkers?	.71						
SESG3	Taking part in group lunches or dinners with your coworkers?	.80						
SESG4	Engaging in small talk with your coworkers?	.72						
SESG5	Participating in a game night with your coworkers?	.81						
SESG6	Socialising with your supervisors at a company function?	.78						
Performance in Public Contexts								
SEPP7	Presenting to a group of potential clients?		.85			.90	.66	.99
SEPP8	Presenting the results of your current work to colleagues at a meeting?		.80					
SEPP10	Facilitating a group dicussion in your work unit?		.63					
SEPP11	Making a presentation on behalf of your company to a large audience?		.84					
SEPP12	Presenting a work project at a management meeting?		.90					
Conflict Management								
SECM13	Approaching your supervisor regarding your unfair performance appraisal?			.67		.78	.42	.98
SECM14	Your supervisor ask you to work overtime. How confident are you in refusing this request?			.60				
SECM15	Asking your supervisor for feedback regarding your performance?			.62				
SECM16	A colleague asks for your help on a project and you do not have the time. How confident…			.65				
SECM17	Giving negative performance feedback to a coworker?			.70				
Seeking and Offering Help								
SEHP19	Asking coworkers to help you on a work project?				.53	.70	.50	.97
SEHP20	Seeking help from your supervisor when you have a fast-approaching deadline?				.84			
SEHP18	You notice a colleague is frustrated. How confident are you about giving support?				.72			
SEHP21	Asking for help from a coworker when you have a fast approaching deadline at work?				.84			
SEHP22	Offering help to a coworker who appears overwhelemed by a project he or she is working on?				.50			
	Total					.93	.55	1.00

EBI: Factor Loadings and Reliability Calculations.

Item	Statement	Factor Loading					α	AVE	CR
		1	2	3	4	5			
Simple Knowledge									
ESK1	Most things worth knowing are easy to understand	.60					.63	.36	.94
ESK10	Too many theories just complicate things	.57							
ESK12	Instructors should focus on facts instead of theories	.63							
Omniscient Authority									
EOA4	People should always obey the law		.72				.65	.37	.93
EOA25	When someone in authority tells me what to do, I usually do it		.55						
EOA26	People shouldn't question authority		.55						
Certain Knowledge									
ECK7	Parents should teach their children all there is to know about life			.32			.44	.24	.88
ECK18	If two people are arguing about something, at least one of them must be wrong			.61					
ECK23	Removed What is true today will be true tomorrow			.49					
Innate Knowledge									
EIA8	Really smart students don't have to work as hard to do well in school				.55		.53	.29	.87
EIA14	How well you do in school depends on how smart you are				.41				
EIA24	Smart people are born that way				.63				
Quick Learning									
EQL15	If you don't learn something quickly, you won't ever learn it					.65	.57	.44	.94
EQL20	If you haven't understood a book chapter the first time through, going back over it won't help					.50			
EQL27	Working on a problem with no quick solution is a waste of time					.80			
	Total						.71	.68	.98

SI: Factor Loadings and Reliability Calculations.

Item	Statement	Factor Loading					α	AVE	CR
		1.00	2.00	3.00	4.00	5.00			
Communication									
SC1	Asking questions	.62					.77	.43	.93
SC3	Communicating to colleagues	.78							
SC4	Communicating to customers	.58							
SC6	Communicating to others by writing	.61							
SC8	Working with other people in a team	.67							
Commercial									
SCA1	Awareness of profitability		.63				.76	.46	.97
SCA2	Awareness of quality control processes		.76						
SCA3B	Assessing risk		.75						
SCA5	Awareness of professional culture		.54						
Project									
SPA2	Being creative about problems			.57			.84	.40	.99
SPA3	Handling lots of information			.72					
SPA4	Planning and organising activities			.53					
SPA5	Making decisions			.70					
SPA6	Identifying and solving problems			.64					
SPA7	Using your own judgement			.71					
SPA10	Finishing jobs to completion			.65					
SPA12	Paying attention to detail			.60					
SPA11	Seeking out new opportunities to learn			.55					
Technical									
STA1	Using database software (i.e. Excel or similar)				.68		.74	.52	.99
STA2	Using presentation software (i.e. PowerPoint or similar)				.78				
STA3	Using word processing software (i.e. Word or similar)				.71				
Ethical									
SEA1	Responsible for valuable/sensitive information					.62	.62	.32	.95
SEA2	Being sensitive to the needs of others					.51			
SEA4	Awareness of different cultures					.48			
SC11	Listening to others					.64			
	Total						.90	.78	1.00

C.3.0 Analysis

Table C.11: *SI: 41-Item Skills Inventory*

Item	Skill	Mean
M77	Using the internet to find information	89.00
M67	Being friendly	87.05
M58	Working on your own	84.92
M60	Using word processing software (i.e. Word or similar)	84.75
M75	Finishing jobs to completion	83.74
M88	Listening to others	83.19
M73	Well groomed/following the dress code of the organisation	82.91
M61	Being punctual	82.25
M84	Having experience of situations requiring honesty	80.30
M93	Carry out instructions from others	79.89
M72	Using presentation software (i.e. PowerPoint or similar)	79.79
M81	Meeting tight deadlines	79.12
M83	Responsible for money	78.48
M78	Being sensitive to the needs of others	77.71
M79	Using your own judgement	77.67
M59	Working with other people in a team	77.58
M95	Awareness of different cultures	77.27
M74	Paying attention to detail	76.90
M94	Taking orders without getting offended	76.38
M76	Communicating to others by writing (email, reports, risk assessment etc.)	75.71
M57	Identifying and solving problems	75.66
M70	Working in a stressful environment	74.44
M62	Awareness of health and safety issues	73.98
M71	Communicating to customers	72.73
M90	Responsible for valuable/sensitive information	72.70
M87	Making decisions	72.69
M69	Handling lots of information	72.57
M65	Communicating to colleagues	72.50
M80	Taking the initiative	72.11
M95a	Awareness of professional culture (Hierarchy, conduct etc.)	71.60
M89	Presenting to small groups of people	71.45
M82	Asking questions	71.27
M63	Assessing risk	70.81
M86	Planning and organising activities	70.54
M64	Seeking out new opportunities to learn	69.79
M92	Awareness of global problems	69.41
M85	Being creative about problems	68.44
M66	Using database software (i.e. Excel or similar)	65.91
M91	Awareness of risk management	63.86
M68	Awareness of quality control processes	61.40
M95b	Awareness of profitability (Budget management, sales forecasts etc.)	51.21

Table C.12: *Correlation Matrix for all Variables Including Sub-Scales*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	**Metacognition (MAI)**																							
2	Knowledge of Cognition	.80**																						
3	Regulation of Cognition	.94**	.56*																					
4	**General Self-efficacy (NGSE)**	**.51****	**.60****	**.37****																				
5	**Work Self-efficacy (WSSE)**	**.32****	**.37****	**.23****	**.49****																			
6	Social Gathering	.19**	.28**	.11*	.28**	.82**																		
7	Performance in Public Contexts	.29**	.33**	.21**	.45**	.81**	.46**																	
8	Conflict	.32**	.33**	.25**	.47**	.81**	.48**	.60**																
9	Seeking and Giving Help	.27**	.30**	.20**	.44**	.72**	.53**	.48**	.61**															
10	**Epistemological Beliefs (EBI)**	**.10***	**.10***	**.08**	**.12***	**.11***	**.09**	**.04**	**.18****	**.07**														
11	Omniscient Authority	-.06	-.09	-.04	.00	.09	.03	.08	.20**	-.07	.41**													
12	Certain Knowledge	-.02	-.02	-.01	0	-.05	-.02	-.10*	-.01	-.03	.58**	.15**												
13	Quick Learning	.21**	.24**	.16**	.22**	.19**	.13*	.13*	.23**	.15**	.70**	.10*	.36**											
14	Simple Knowledge	.06	.07	.04	.10*	.07	.01	.05	.17**	.07	.70**	.18**	.33**	.48**										
15	Innate Knowledge	.07	.06	.07	.05	.03	.08	-.03	.01	.06	.70**	.07	.23**	.29**	.27**									
16	**Skills Inventory (SI)**	**.45****	**.42****	**.39****	**.40****	**.47****	**.35****	**.38****	**.42****	**.35****	**.07**	**-.03**	**-.02**	**.15****	**.05**	**.05**								
17	Communication	.39**	.39**	.33**	.38**	.60**	.48**	.48**	.48**	.47**	.06	-.03	-.02	.17**	.06	.01	.81**							
18	Commercial Awareness	.29**	.25**	.26**	.25**	.33**	.22**	.30**	.29**	.23**	-.03	0	-.13*	-.02	-.05	.03	.77**	.51**						
19	Project Awareness	.46**	.45**	.39**	.47**	.42**	.28**	.35**	.43**	.28**	.10*	.01	-.01	.18**	.09	.04	.89**	.71**	.57**					
20	Technical Awareness	.20**	.25**	.14**	.15**	.10*	.08	.11*	.04	.12*	.04	-.12*	.09	.07	.04	.05	.49**	.24**	.28**	.30**				
21	Ethical Awareness	.27**	.14**	.29**	.14**	.21**	.19**	.13*	.21**	.14**	.05	-.02	.05	.10*	-.01	.04	.72**	.46**	.54**	.55**	.28**			
22	**Work Experience**	**.07**	**.08**	**.05**	**.11***	**.17****	**.12***	**.20****	**.09**	**.10***	**.12***	**-.08**	**.09**	**.11***	**.20****	**.05**	**.22****	**.21****	**.20****	**.23****	**.00**	**.14****		
23	**Careers Development Support**	**.19****	**.18****	**.16****	**.16****	**.09**	**.00**	**.19****	**.06**	**.07**	**.09**	**-.08**	**.11***	**.15****	**.10***	**.02**	**.21****	**.16****	**.14****	**.20****	**.12***	**.17****	**.30****	
24	**Degree Classification (Anticipated)**	**.23****	**.23****	**.19****	**.27****	**.09**	**-.03**	**.12***	**.15***	**.05**	**.13***	**-.02**	**.05**	**.16****	**.19****	**.09**	**.15****	**.12***	**-.01**	**.26****	**.13***	**-.02**	**.15***	**0.1**

Note: *=p<.05, **=p<.01

Table C.13: *One-Way Analysis of Variance by Degree Classification*

	Instrument	*df*	*SS*	*MS*	*F*	*p*
MAI	Between Groups	3	4337.72	1445.91	5.91	0.00
	Within groups	231	56545.82	244.79		
	Total	234	60883.54			
EBI	Between Groups	3	389.21	129.74	1.50	0.22
	Within groups	231	20042.65	86.76		
	Total	234	20431.85			
WSSE	Between Groups	3	1564.47	521.49	2.96	0.03
	Within groups	231	40674.62	176.08		
	Total	234	42239.09			
NGSE	Between Groups	3	931.24	310.41	8.02	0.00
	Within groups	231	8939.01	38.70		
	Total	234	9870.25			
SI	Between Groups	3	633285.83	211095.28	2.66	0.05
	Within groups	231	18335325.86	79373.71		
	Total	234	18968611.69			
Work Experience	Between Groups	3	21.36	7.12	2.54	0.06
	Within groups	231	646.54	2.80		
	Total	234	667.90			
Careers	Between Groups	3	30.87	10.29	1.26	0.29
	Within groups	231	1888.95	8.18		
	Total	234	1919.82			

Table C.14: *T-Tests and Descriptive Statistics by Gender*

	Gender						95% CI**			
	Male			Female						
	M	*SD*	n	*M*	*SD*	n		t	*df*	*d*
MAI	108.56	18.25	103	109.47	14.57	191	-5.02,3.21	-0.43	173	
KnowCog	39.35	7.55	103	39.77	5.67	191	-2.09,1.26	-.49	165	
RegCog	69.21	12.49	103	69.69	10.88	191	-3.24,2.27	-.35	292	
NGSE	30.26	6.51	103	28.47	6.22	191	.26,3.31	2.31*	292	.28
WSSE	68.19	14.96	103	65.32	12.86	191	-.40,6.15	1.72	292	
Social Gathering	26.15	6.79	103	27.08	5.47	191	-2.37,.50	-1.20	174	
Performance	17.10	5.22	103	15.26	4.90	191	.63,3.05	3.01*	292	.37
Conflict	17.40	4.03	103	15.59	3.89	191	.86,2.76	3.76*	292	.46
Resolution										
Helping Others	7.53	2.08	103	7.39	1.81	191	-.31,.60	0.63	292	
EBI	68.43	10.48	103	67.52	8.61	191	-1.46,3.16	0.76	177	
Authority	8.96	2.55	103	8.64	2.36	191	-.27,.90	1.05	292	
Certain	11.11	2.34	103	11	1.98	191	-.39,.62	0.45	292	
Knowledge										
Quick Learning	15.66	3.34	103	15.44	2.67	191	-.48,.92	0.58	173	
Innate	14.19	2.99	103	13.32	2.77	191	-1.62,.42	-1.15	292	
Knowledge										
Simple	18.51	4.41	103	19.11	4.19	191	.18,1.55	2.48*	292	.10
Knowledge										
SI	1776.08	278.95	103	1850.09	283.09	191	-141.78,-6.25	-2.15*	292	.26
Communication	352.73	76.95	103	377.78	72.25	191	-42.83,-7.27	-2.77*	292	0.34
Commercial	239.37	77.87	103	249.39	74.49	191	-28.23,8.19	-1.08	292	
Project	655.84	107.04	103	672.84	114.05	191	-43.87,9.86	-1.25	292	
Technical	231.74	50.46	103	232.20	50.39	191	-12.59,11.66	0.8	292	
Ethical	216.09	45.63	103	232.70	43.14	191	-27.21,-6.02	-3.09*	292	.37
Experience	5.46	2.06	103	5.79	2.17	191	-.85,.18	-1.30	292	
Career..	9.36	2.71	103	9.73	2.94	191	-1.06,.33	-1.03	292	

Note: *p<.05., ** CI =Confidence Interval on the Mean

Difference

Table C.15: *One-Way Analysis of Variance by NS-SEC Socio-Economic Status*

	Source	df	SS	MS	*F*	p
MAI	Between Groups	2	.40	.20	.00	.99
	Within groups	229	59943.11	261.76		
	Total	231	59943.51			
NGSE	Between Groups	2	8.41	4.20	.10	.91
	Within groups	229	10002.81	43.68		
	Total	231	10011.22			
WSSE	Between Groups	2	153.52	76.76	.40	.67
	Within groups	229	43773.47	191.15		
	Total	231	43926.99			
EBI	Between Groups	2	41.92	20.96	.23	.80
	Within groups	229	20944.98	91.43		
	Total	231	20986.90			
SI	Between Groups	2	249.42	124.71	.02	1.00
	Within groups	229	17791440.99	77691.88		
	Total	231.00	17791690.41			
Work Experience	Between Groups	2	4.89	2.45	.54	.59
	Within groups	229	1043.18	4.56		
	Total	231	1048.07			
Career Guidance	Between Groups	2	15.86	7.93	.94	.39
	Within groups	229	1936.15	8.46		
	Total	231.00	1952.01			

Table C.16: *One-Way Analysis of Variance by Year Group*

	Source	*df*	*SS*	*MS*	*F*	*p*
MAI	Between Groups	3	510.01	170.00	.67	.57
	Within groups	289	72999.79	252.59		
	Total	292	73509.80			
NGSE	Between Groups	3	72.09	24.03	0.59	.62
	Within groups	289	11747.86	40.65		
	Total	292	11819.96			
WSSE	Between Groups	3	233.74	77.91	.41	.74
	Within groups	289	54480.66	188.51		
	Total	292	54714.40			
EBI	Between Groups	3	204.31	68.10	.79	.50
	Within groups	289	24942.09	86.30		
	Total	292	25146.40			
SI	Between Groups	3	504388.38	168129.46	2.11	.10
	Within groups	289	23017258.67	79644.49		
	Total	292	23521647.06			
Work Experience	Between Groups	3	76.89	25.63	5.91	.00
	Within groups	289	1252.59	4.33		
	Total	292	1329.48			
Career Guidance	Between Groups	3	392.19	130.73	18.81	.00
	Within groups	289	2008.35	6.95		
	Total	292	2400.53			

Table C.17: *T-tests and Descriptive Statistics by SES*

	NS-SEC						95% CI**			
	Low			High						
	M	*SD*	n	*M*	*SD*	n		t	*df*	*d*
	M	SD	n	Mean	SD	n		t	df	d
MAI	109.65	16.12	121	109.64	16.17	111	4.18,'4.18	.00	230	-
NGSE	29.24	6.60	121	28.86	6.59	111	-1.33,2.09	.44	230	-
WSSE	66.51	13.30	121	64.88	14.31	111	-1.94,5.20	.90	230	-
EBI	67.63	9.69	121	68.02	9.39	111	-2.87,2.07	-.32	230	-
SI	1832.56	277.16	121	1830.67	279.18	111	- 70.13,73.92	.05	230	-
Work Experience	5.91	2.09	121	5.67	2.18	111	-.31,.79	.87	230	-
Career Guidance	9.75	3.02	121	9.54	2.79	111	-.55,.96	.55	230	-
Degree Class..	2.99	.61	99	3.1	.77	90	-.31,.09	-1.10	170	-

Note: *p<.05., ** CI =Confidence Interval on the Mean Difference

Table C.18: *Chi-Square: Engagement with Non-Graduate Work Experience*

	Non-Graduate Experience				
Variable	No	Yes	χ^2	*p*	OR
Gender					
Male	15(15)	87 (85)	1.13	.35	-
Female	20 (11)	171 (90)			-
Age					
18-21	28 (12)	210 (88)	.04	.82	-
22-30	7 (20)	258 (88)			-
Anticipated Grade					
High	18 (9)	176 (91)			-
Low	6 (25)	34 (85)			-
Graduate Work Experience					
No	28 (14)	177 (86)	1.26	.33	-
Yes	8 (9)	81 (91)			-
Groups and Clubs					
Yes	11 (22)	39 (78)	5.34	.03*	2.47
No	25 (10)	219 (90)			-
Careers Engagement					
No	26 (15)	151 (85)	2.47	.08	-
Yes	10 (9)	107 (91)			-
Socioeconomic Status					
Low	13 (11)	108 (89)	.42	.33	-
High	15 (54)	96 (86)			-
Parental Degree					
Yes	18 (12)	132 (88)	.00	.56	-
No	17 (12)	126 (88)			-
Past Work Arranged					
Yes	13 (9)	129 (91)			-
No	22 (15)	129 (85)	2.04	.2	-
Future Work Arranged					
Yes	18 (10)	157 (90)	1.14	.19	-
No	35 (12)	258 (88)			-

Note:χ^2 Chi-Square. OD = Odds Ratio

Table C.19: *Chi-Square: Engagement with 'Graduate' Work Experience*

	Graduate Experience				
Variable	No	Yes	χ^2	*p*	OR
Gender					
Male	81(71)	21 (31)	7.09	.01	2.13
Female	123 (133)	68 (58)			-
Age					
18-21	173 (166)	65 (73)	5.63	.02*	2.06
22-30	31 (38)	24 (16)			-
Anticipated Grade					
High	128 (131)	66 (63)	1.23	.35	-
Low	30 (27)	10 (13)			-
Non-Graduate					
No	28 (25)	8 (11)	1.26	.33	-
Yes	177 (179)	81 (78)			-
Groups and Clubs					
Yes	38 (35)	12 (15)	1.12	.32	-
No	167 (170)	77 (74)			-
Careers Guidance					
No	137 (123)	40 (54)	12.41	.00	-
Yes	68 (82)	49 (35)			-
Socioeconomic Status					
Low	80 (82)	41 (39)	.46	.57	-
High	78 (76)	33 (35)			-
Parental Degree					
Yes	107 (104)	43 (46)	.42	.53	-
No	97 (100)	46 (43)			-
Past Work Arranged					
Yes	91 (99)	51 (43)	4	.05	.6
No	113 (105)	38 (46)		.2	-
Future Work Arranged					
Yes	78 (82)	40 (36)	1.16	.3	-
No	126 (122)	49 (53)			-

Note:χ^2 Chi-Square. OD = Odds Ratio

Table C.20: *Chi-Square: Engagement with Career Guidance*

	Non-Graduate Experience				
Variable	No	Yes	χ^2	*p*	OR
Gender					
Male	52(50)	49(51)	.21	.71	-
Female	92 (94)	97 (95)			
Age					
18-21	118 (117)	118(118)	.06	.88	-
22-30	26 (27)	28 (27)			
Anticipated Grade					
High	84 (88)	108 (104)	1.69	.22	-
Low	22 (18)	18 (22)			
Year Group					
1	86 (82)	19 (18)	39.95	.00*	
2	33 (49)	34 (51)			
3	53 (52)	48 (48)			
4	4 (20)	16 (80)			
Non-Graduate					
No	21 (17)	14 (18)	1.65	.21	-
Yes	124 (128)	132 (128)			
Graduate					
No	113 (101)	89 (101)	9.87	.00*	2.26
Yes	32 (44)	57 (45)			
Groups and Clubs					
Yes	33 (24)	16 (25)	7.23	.00*	2.39
No	112 (121)	130 (121)			
Socioeconomic Status					
Low	58 (58)	60 (60)	0	1	-
High	55 (55)	56 (56)			
Parental Degree					
Yes	78(74)	70 (75)	1.12	.29	-
No	66 (71)	76 (72)			
Past Work Arranged					
Yes	71 (70)	70 (71)	0.54	.91	-
No	73 (74)	76 (75)			
Future Work Arranged					
Yes	64(58)	53 (59)	1.99	.09	-
No	80 (86)	93 (87)			-

Note:χ^2 Chi-Square. OD = Odds Ratio

Table C.21: *T-Tests by High and Low Work Experience*

	Low SI			High SI			95% CI **			
	M	*SD*	n	*M*	*SD*	n		t	df	d
MAI	107.45	14.43	116	110.26	16.78	178	-6.43,0.81	-1.53	271	-
Knowledge	38.89	6.20	116	40.10	6.47	178	-2.70,.29	-1.59	292	-
Regulation	68.55	10.54	116	70.16	11.99	178	-4.29,1.08	-1.18	292	-
NGSE	28.44	6.11	116	29.52	6.51	178	-2.56,.39	-1.43	292	-
WSSE	64.49	13.33	116	67.53	13.80	178	-6.23,.14	-1.87	292	-
Social	26.67	5.71	116	26.81	6.15	178	-1.55,1.26	-.20	292	-
Performance	14.87	5.01	116	16.58	5.03	178	-2.89,-.53	-2.86*	292	.34
Conflict	15.72	3.80	116	16.56	4.14	178	-1.78-.11	-1.74	292	-
Helping	7.23	1.87	116	7.57	1.93	178	-.79,.10	1.52	292	-
EBI	67.45	9.90	116	68.09	8.91	178	-2.83,1.54	-.58	292	-
Authority	8.98	2.49	116	8.61	2.38	178	-.20-.94	1.28	292	-
Certain	11.12	2.24	116	10.99	2.02	178	-.36-.63	.52	292	-
Quick	15.42	3.22	116	15.59	2.71	178	-0.88,.54	-.48	292	-
Innate	18.86	4.39	116	18.92	4.20	178	-1.07,.94	-.12	292	-
Simple	13.07	3.08	116	13.99	2.69	178	-1.60,-.22	-2.61*	292	.32
SI	1748.41	267.34	116	1873.53	283.35	178	-190.21,-	-3.78*	292	-.45
							60.03			
	350.77	75.10	116	380.89	72.31	178	-47.36,-12.88	-3.44*	292	-.41
Communication										
Commercial	226.66	72.18	116	258.40	75.53	178	-49.17,-14.30	-3.62*	292	-.43
Project	637.17	105.04	116	686.24	112.03	178	74.75,-23.39	-3.76*	292	-.45
Technical	230.29	53.14	116	233.17	48.53	178	14.72,8.95	.48	292	-
Ethical	220.69	43.79	116	230.92	44.89	178	-20.62,.17	-1.93*	292	-.23

Note: *p<.05., ** CI =Confidence Interval on the Mean

Difference

C.4.0 Full Instrument

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

{MAI – Metacognitive Awareness Inventory}

Please respond to the following, indicating how true or false each statement is about you on a typical day.

	Always False	Sometimes False	Neutral	Sometimes True	Always True
I ask myself periodically if I am meeting my goals	☐	☐	☐	☐	☐
I consider several alternatives to a problem before I answer	☐	☐	☐	☐	☐
I try to use strategies that have worked in the past	☐	☐	☐	☐	☐
I pace myself while learning to have enough time	☐	☐	☐	☐	☐
I understand my intellectual strengths and weaknesses	☐	☐	☐	☐	☐
I think about what I really need to learn before I begin a task	☐	☐	☐	☐	☐
I know how well I did once I finish a test	☐	☐	☐	☐	☐
I set specific goals before I begin a task	☐	☐	☐	☐	☐
I slow down when I encounter important information	☐	☐	☐	☐	☐
I know what kind of information is most important to learn	☐	☐	☐	☐	☐
I ask myself if I have considered all options when solving a problem	☐	☐	☐	☐	☐
I am good at organising information	☐	☐	☐	☐	☐
I consciously focus my attention on important information	☐	☐	☐	☐	☐
I have a specific purpose for each strategy I use	☐	☐	☐	☐	☐
I learn best when I know something about the topic	☐	☐	☐	☐	☐
I know what the teacher expects me to learn	☐	☐	☐	☐	☐
I am good at remembering information	☐	☐	☐	☐	☐
I use different learning strategies depending on the situation	☐	☐	☐	☐	☐
I ask myself if there was an easier way to do things after I finish a task	☐	☐	☐	☐	☐
I have control over how well I learn	☐	☐	☐	☐	☐
I periodically review to help me understand important relationships	☐	☐	☐	☐	☐
I ask myself questions about the material before I begin	☐	☐	☐	☐	☐
I think of several ways to solve a problem and choose the best one	☐	☐	☐	☐	☐
I summarise what I have learned after I finish	☐	☐	☐	☐	☐
I ask others for help when I do not understand something	☐	☐	☐	☐	☐

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

I can motivate myself to learn when I need to	☐	☐	☐	☐	☐
I am aware of what strategies I use when I study	☐	☐	☐	☐	☐
I find myself analysing the usefulness of strategies while I study	☐	☐	☐	☐	☐
I use my intellectual strengths to compensate for my weaknesses	☐	☐	☐	☐	☐
I focus on the meaning and significance of new information	☐	☐	☐	☐	☐
I create my own examples to make information more meaningful	☐	☐	☐	☐	☐
I am a good judge of how well I understand something	☐	☐	☐	☐	☐
I find myself using helpful learning strategies automatically	☐	☐	☐	☐	☐
I find myself pausing regularly to check my comprehension	☐	☐	☐	☐	☐
I know when each strategy I use will be most effective	☐	☐	☐	☐	☐
I ask myself how well I accomplished my goals once I'm finished	☐	☐	☐	☐	☐
I draw pictures or diagrams to help me understand while learning	☐	☐	☐	☐	☐
I ask myself if I have considered all options after I solve a problem	☐	☐	☐	☐	☐
I try to translate new information into my own words	☐	☐	☐	☐	☐
I change strategies when I fail to understand	☐	☐	☐	☐	☐
I use the organisational structure of text to help me learn	☐	☐	☐	☐	☐
I read instructions carefully before I begin a task	☐	☐	☐	☐	☐
I ask myself if what I'm reading is related to what I already know	☐	☐	☐	☐	☐
I re-evaluate my assumptions when I get confused	☐	☐	☐	☐	☐
I organise my time to best accomplish my goals	☐	☐	☐	☐	☐
I learn more when I am interested in the topic	☐	☐	☐	☐	☐
I try to break studying down into smaller steps	☐	☐	☐	☐	☐
I focus on overall meaning rather than specifics	☐	☐	☐	☐	☐
I ask myself questions about how well I'm doing while I am learning something new	☐	☐	☐	☐	☐
I ask myself if I learned as much as I could have once I finish a task	☐	☐	☐	☐	☐
I stop and go back over new information that is not clear	☐	☐	☐	☐	☐

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

I stop and reread when I get confused	☐	☐	☐	☐	☐

{NGSE: New General Self-efficacy Scale}

Please answer the items below in relation to yourself on a typical day.

Place a tick in the most appropriate box [1= No confidence at all, 5= complete confidence]

	1	2	3	4	5
I will be able to achieve most of the goals I have set for myself	☐	☐	☐	☐	☐
When facing difficult tasks, I am certain that I will accomplish them	☐	☐	☐	☐	☐
In general, I think that I can obtain outcomes that are important to me	☐	☐	☐	☐	☐
I believe I can succeed at almost any endeavour to which I set my mind	☐	☐	☐	☐	☐
I will be able to successfully overcome many challenges	☐	☐	☐	☐	☐
I am confident that I can perform effectively on many different tasks	☐	☐	☐	☐	☐
Compared to other people, I can do most tasks very well	☐	☐	☐	☐	☐
Even when things are tough, I can perform quite well	☐	☐	☐	☐	☐

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

{EBI: Epistemological Beliefs Inventory}

How much do you agree or disagree with the following statements? [1 = Strongly disagree, 5 = Strongly agree]

	1	2	3	4	5
Most things worth knowing are easy to understand	☐	☐	☐	☐	☐
What is true is a matter of opinion	☐	☐	☐	☐	☐
Students who learn things quickly are the most successful	☐	☐	☐	☐	☐
People should always obey the law	☐	☐	☐	☐	☐
People's intellectual potential is fixed at birth	☐	☐	☐	☐	☐
Absolute moral truth does not exist	☐	☐	☐	☐	☐
Parents should teach their children all there is to know about life	☐	☐	☐	☐	☐
Really smart students don't have to work as hard to do well in school	☐	☐	☐	☐	☐
If a person tries too hard to understand a problem, they will most likely end up being confused	☐	☐	☐	☐	☐
Too many theories just complicate things	☐	☐	☐	☐	☐
The best ideas are the most simple	☐	☐	☐	☐	☐
Instructors should focus on facts instead of theories	☐	☐	☐	☐	☐
Some people are born with special gifts and talents	☐	☐	☐	☐	☐
How well you do in school depends on how smart you are	☐	☐	☐	☐	☐
If you don't learn something quickly, you won't ever learn it	☐	☐	☐	☐	☐
Some people just have a knack for learning and others don't	☐	☐	☐	☐	☐
Things are simpler than most professors would have you believe	☐	☐	☐	☐	☐
If two people are arguing about something, at least one of them must be wrong	☐	☐	☐	☐	☐
Children should be allowed to question their parents' authority	☐	☐	☐	☐	☐
If you haven't understood a book chapter the first time through, going back over it won't help	☐	☐	☐	☐	☐
Science is easy to understand because it contains so many facts	☐	☐	☐	☐	☐
The more you know about a topic, the more there is to know	☐	☐	☐	☐	☐
What is true today will be true tomorrow	☐	☐	☐	☐	☐
Smart people are born that way	☐	☐	☐	☐	☐
When someone in authority tells me what to do, I usually do it	☐	☐	☐	☐	☐
People shouldn't question authority	☐	☐	☐	☐	☐
Working on a problem with no quick solution is a waste of time	☐	☐	☐	☐	☐

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Sometimes there are no right answers to life's big problems	☐	☐	☐	☐	☐

(WSSE: Workplace Social Self-Efficacy Scale }

Now imagine that instead of being a student you have a full-time job. How confident would you feel about the following based on your current experience level?

Place a tick in the most appropriate box [1= No confidence at all, 5= complete confidence]

How confident are you at…	1	2	3	4	5
Inviting your coworkers to an office party?	☐	☐	☐	☐	☐
Participating in a gift exchange with your co-workers?	☐	☐	☐	☐	☐
Taking part in group lunches or dinners with your co-workers?	☐	☐	☐	☐	☐
Engaging in small-talk with your coworkers prior to a meeting?	☐	☐	☐	☐	☐
Participating in a game night with your co-workers?	☐	☐	☐	☐	☐
Socializing with your supervisors at a company function?	☐	☐	☐	☐	☐
Presenting to a group of potential clients?	☐	☐	☐	☐	☐
Presenting the results of your current work project to your colleagues at a staff meeting?	☐	☐	☐	☐	☐
Expressing you opinions at a staff meeting?	☐	☐	☐	☐	☐
Facilitating a group discussion in your workplace?	☐	☐	☐	☐	☐
Making a presentation on behalf of your company to a large audience at a professional conference?	☐	☐	☐	☐	☐
Presenting a work project at a management meeting where your supervisor and other managers attend?	☐	☐	☐	☐	☐
Approaching your supervisor regarding your unfair performance appraisal without creating tension with him or her?	☐	☐	☐	☐	☐
Your supervisor asks you to work overtime on a day when you have a prior engagement. How confident are you in refusing this request without creating a bad impression?	☐	☐	☐	☐	☐
Asking your supervisor for feedback regarding your performance on a recently completed	☐	☐	☐	☐	☐
A colleague asks for your help on a project, and you do not have the time. How confident are you in saying no without damaging your relationship with him or her?	☐	☐	☐	☐	☐
Giving negative performance feedback to a co-worker without frustrating him or her off?	☐	☐	☐	☐	☐
You notice your co-worker is frustrated with his or her current work project. How confident are you in taking him or her out for lunch to give him/her support?	☐	☐	☐	☐	☐
Asking co-workers to help you on a work project?	☐	☐	☐	☐	☐
Seeking help from your supervisor when you are having difficulty completing a job task?	☐	☐	☐	☐	☐
Asking for help from a co-worker when you have a fast-approaching deadline at work?	☐	☐	☐	☐	☐

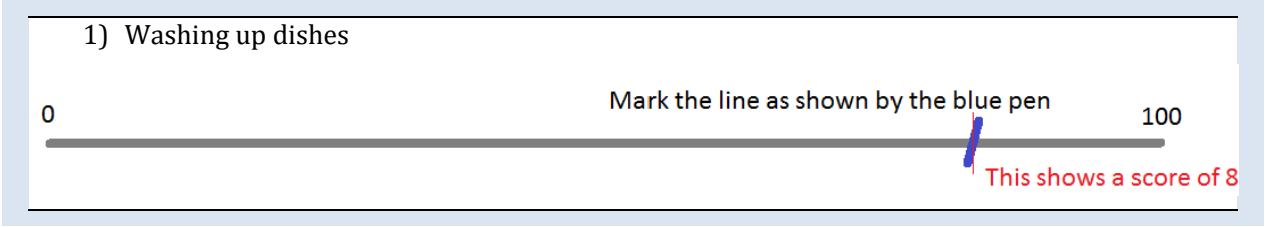
Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Offering help to a co-worker who appears overwhelmed by a project he or she is currently working on? ☐ ☐ ☐ ☐ ☐

{SI: Skills Inventory}

Think about how experienced you are at the following, try and be objective and not influenced by your self-confidence.

Zero is not experienced at all (false), 100 is as experienced a person your age could be. Here is an example:



Identifying and solving problems
0 100

Working on your own
0 100

Working with other people in a team
0 100

Using a word processing software (i.e. Word or similar)
0 100

Being punctual
0 100

Awareness of health & safety issues
0 100

Assessing risk
0 100

Seeking out new opportunities to learn
0 100

Communicating to colleagues
0 100

Using database software (i.e. Excel or similar)
0 100

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Being friendly

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Continued… **Think about how experienced you are at the following, try and be objective and not influenced by your self-confidence.**

Zero is not experienced at all (false), 100 is as experienced a person your age could be.

Awareness of quality control processes
0 100

Handling lots of information
0 100

Working in a stressful environment
0 100

Communicating to customers
0 100

Using presentation software (i.e. PowerPoint or similar)
0 100

Well groomed/following the dress code of the organisation
0 100

Paying attention to detail
0 100

Finishing jobs to completion
0 100

Communicating to others by writing (email, reports, risk assessment etc.)
0 100

Using the internet to find information
0 100

Being sensitive to the needs of others
0 100

Using your own judgement
0 100

Taking the initiative
0 100

Meeting tight deadlines
0 100

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Continued... **Think about how experienced you are at the following, try and be objective and not influenced by your self-confidence.**

Zero is not experienced at all (false), 100 is as experienced a person your age could be.

Asking questions
0 100

Responsible for money
0 100

Having experience of situations requiring honesty
0 100

Awareness of risk management
0 100

Planning and organising activities
0 100

Making decisions
0 100

Presenting to small groups of people
0 100

Responsible for valuable/sensitive information
0 100

Awareness of risk management
0 100

Awareness of global problems
0 100

Carry out instructions from others
0 100

Taking orders without getting offended
0 100

Awareness of different cultures
0 100

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Continued: **Think about how experienced you are at the following, try and be objective and not influenced by your self-confidence.**

Zero is not experienced at all (false), 100 is as experienced a person your age could be.

Awareness of professional culture (Hierarchy, conduct etc.)

0 100

Awareness of profitability (Budget management, sales forecasts etc.)

0 100

Listening to others

0 100

Now think about the following questions in relation to typical work undertaken by students Examples of these jobs could be working in catering, a bar, or retail. (Paid or unpaid, including volunteering).

Have you ever performed this type of role?

- ☐ Yes
- ☐ No

If yes, which of the following statements MOST applies to this role?

- ☐ I work at this job continuously alongside my studies
- ☐ I work at this job throughout summer alongside my studies
- ☐ I have performed this job before for a considerable period of time (6months+)
- ☐ I have performed this job but only for a short period (-6months)

What is this role? (e.g. waiter, retail assistant)

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

Now think about the following questions in relation to positions which might be considered graduate or graduate-type work experience (Paid or unpaid, including volunteering).

Examples could be working as an intern for a company, working with vulnerable groups (e.g. children/people with mental health problems), and roles which require considerable responsibility like Special Police Constables

Have you ever performed this type of role?

- ☐ Yes
- ☐ No

If yes, which of the following statements MOST applies to this role?

- ☐ I work at this job continuously alongside my studies
- ☐ I work at this job throughout summer alongside my studies
- ☐ I have performed this job before for a considerable period of time (6months+)
- ☐ I have performed this job but only for a short period (-6months)

What is this role?

Finally, think about any experience you have of groups and societies outside of your studies.

Examples might be sports clubs, scouts or guides, Duke of Edinburgh schemes etc.

Have you ever performed this type of role?

- ☐ Yes
- ☐ No

Which of the following statements MOST applies to this role?

- ☐ I work at this job continuously alongside my studies
- ☐ I work at this job throughout summer alongside my studies
- ☐ I have performed this job before for a considerable period of time (6months+)
- ☐ I have performed this job but only for a short period (-6months)

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

You've reached the final section. Please keep going!

Thinking about your time at university, have you done any of the following?

	Yes	Plan to do this year	No/ Haven't considered
Attended a talk from careers-service advisors	☐	☐	☐
Accessed support to write a CV or job application form	☐	☐	☐
Attended a talk from businesses or alumni (students who have graduated)	☐	☐	☐
Attended a 1:1 session with a careers adviser	☐	☐	☐
Signed up to receive information from your careers service	☐	☐	☐

If you graduated now with the grades you have already been awarded what would your final degree class be (Please use your grade point average 40-50, 60-70 etc. to forecast your grade)
Skip to next question if you have not yet received any grades

- ☐ 3rd
- ☐ 2:2
- ☐ 2:1
- ☐ 1st

If you have not yet been awarded any grades what degree class are you aiming for based on your previous education performance?

Skip if you answered the question above

- ☐ 3rd
- ☐ 2:2
- ☐ 2:1
- ☐ 1st

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other ----------

What is your age bracket?

- ☐ 18-21
- ☐ 22-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 70+

What nationality do you identify as?

What university do you study at? (Provide rough location if you don't wish to provide name)

What year of study are you in?

- ☐ 1st
- ☐ 2nd
- ☐ 3rd
- ☐ 4th (4 year degree)

What is your discipline?

i.e geography or psychology

Have family or friends ever arranged work experience or paid work for you?

- ☐ Yes
- ☐ No

Do you think that family or friends will arrange work experience or paid work for you in the future?

- ☐ Yes
- ☐ No

Did either of your parents gain a degree?

- ☐ Yes
- ☐ No

Full Questionnaire used by Study 1. Note: The material below is only representative of the formatting in the online version.

{NSSEC: National Statistics Socio-economic Classification}

When thinking about your parent/parents (including guardians) employment history, tick the box which best relates to their main job

*if you were parented by more than two people please think about those who had the majority input into your upbringing

	1	2
Higher managerial, administrative and professional occupations (e.g. people who employ others, management and jobs requiring technical expertise)	☐	☐
Intermediate occupations (e.g. positions in clerical, sales, service with no supervisory element)	☐	☐
Small employers and own account workers (e.g. self-employed in a trade or service industry)	☐	☐
Lower supervisory and technical occupations (e.g. retail assistant with supervisory role or production foreman)	☐	☐
Semi-routine and routine occupations (e.g. temporary contracts, performing routine tasks, i.e. farm and production workers	☐	☐
Never worked and long-term unemployed	☐	☐

Appendix D

Qualitative Appendices

D.1.0 Study 2

Table D.1: *Study 2: Participant Demographics*

Pseudonym	Age	Gender	Nationality
Interviews			
Vicky	19	Female	British
Sarah	18	Female	British
Ruby	19	Female	British
Jarvis	21	Male	Polish
Rebecca	18	Female	British
Aishah	18	Female	Malaysian
Gregg	18	Male	British
Grace	18	Female	British
Focus Groups			
Toby	19	Male	Welsh
Lorraine	19	Female	British
Jela	18	Female	British
Will	20	Male	British
Andi	19	Male	Estonia
Shae	18	Female	British
Jenny	18	Female	British/Welsh
Lucy	18	Female	British
Scott	18	Male	British
Mel	18	Female	British
Lily	18	Female	British
Calanthia	19	Female	British

Table D.2: *Card-Sort Activity*

Statement by Higher Order Theme	Skills Prompt
Academic Study	Learning to cope
Related to the academic process	Introspection
Part of a contract between the university and student	Handling failure
Meeting standards set by professional bodies	Identifying your own skills
Social Engineering	Positioning yourself
Work Experience	Getting feedback
Learning about the world of work	Exploring options
Doing a vocational course	Take the long term view
What employers want	Reflecting
Careers Guidance	Preparation
About job-getting techniques	Knowing your strengths
The responsibility of the student	Being creative
	Learn from your mistakes
	Seeking advice
	Identifying role models
	Knowing the jobs market
	Promote yourself
	Using support networks

Note: Adapted from the Careers Toolkit (ESECT,2001).

D.2.0 Study 3

Theme	Potential Sub Themes	Quotes
Employability as doing stuff		
	'Vicious 22'	
'Stuff' work experience, extra-curricular activities. Aligning to dominant discourse of employability Interpretations: This `stuff' is important The `stuff ' is what will gain employment CV operating as object	Circular process Exchange process Paradox Uncool / annoyance Doing stuff a necessity Strategy Grief-stricken state – existential concern Effort for no gain Effort with no goal Interpretations: This is difficult This is unfair Competitive Hardwork This is frustrating Requires planning Risk of failure Life changing capacity Fear of failure Authenticity (See Being)	``to get employed you need experience and to get experience you need to get employed'' Nick Line 66 Circular Process  ``The thing is it's like how experience helps to get a job it like goes round in circles you can't get a job if you don't have experience well you can but like it's quite unlikely then you can't you can't have experience if you haven't had a job so it's just like so uncool ' Marco Line 758 ``I dunno to be approached like your brother was he has to be urm, he has to have gone out and **done stuff** for it to be good enough to be approached' Nick Line 12  ``I completely agree with that like on my CV it says that I'm hard working but then everyone says they're hard working but then I genuinely am and it really annoys me because I'm like because everyone says it its gonna get overlooked like you said and I'm just like'' Trudi 197 "I believe to like think about contingence plans, and before I even go into something I've got the idea that I don't want to fail I don't plan to fail but if it doesn't go my way what am I going to do so that way if it doesn't go my way I'm not sitting there in like a grief ricken state because I'm think oh dear god I'm screwed for life but it's like you said making the most of it I've failed on I applied for a the bursary that should of, that they (employer) would have paid for my entire uni fees and guaranteed me the job when I graduated and I failed by 2 points which is imagine that as percentages its tiny urm so the guy who got it over me and urm almost all I've done now since then is the services thing and I've done courses and qualifications to improve upon things they gave me feedback on so when I go back later this year I'm hopefully just gonna absolutely bail it then I'll still have contingence plans" Nick Line 403 Disappointment: '…I think that the I've applied for quite a few jobs probably not as many as most people but particularly in like Aberystwyth like in Aberystwyth I've applied for places not so much recently but in the last two years I have and I've always tried to like